TRACTEBEL Engineering
GDF SUEZ

mtbs

A Regional Transport Intermodal Strategy and Action Plan in the Countries of the East African Community

Draft Technical Report 1 – Revision 1



The World Bank – The East African Community Secretariat

November 12th, 2013

TABLE OF CONTENT

LIST OF ACRONYMS 1

1. INTRODUCTION 3

2. ECONOMIC ENVIRONMENT AND CUSTOMER BASE 4

2.1 Economic activities in the region 4
2.1.1 Macroeconomic indicators 4
2.1.2 Regional economy potential 6

2.2 Trade characteristics 8

2.3 Traffic characteristics 8
2.3.1 Traffic in the corridors 8
2.3.2 Traffic in the main ports 10

2.4 Important shippers and consignees 11
2.4.1 Logistics and shipping companies 11
2.4.2 Freight Forwarders/ Associations 12
2.4.3 Coffee Producers/Importers/Exporters/Associations 12
2.4.4 Tea Producers/Importers/Exporters/Associations 12
2.4.5 Mining/mineral producers 13
2.4.6 Cement producers/ shippers 13
2.4.7 Maize and Wheat producers/ shippers 13
2.4.8 Petroleum products 14
2.4.9 Food products, Consumer goods 14
2.4.10 Fertilizer importers 14

3. PERFORMANCE ANALYSIS NORTHERN CORRIDOR 15

3.1 Mombasa sea port 15
3.1.1 Infrastructure 16
3.1.2 Recent Developments at the Port of Mombasa 19
3.1.3 Capacity Constraints at the Port of Mombasa 20
3.1.4 Accessibility 22
3.1.5 Procedures 22
3.1.6 Planned interventions 23
3.1.7 Critical barriers to trade 24

3.2 Rail 26
3.2.1 Map of the railways in East Africa, Network operated by RVR 26
3.2.2 Organization of the Railways on the Northern Corridor 26
3.2.3 Infrastructure 27
3.2.4 Services 28
3.2.5 Rolling stock 29
3.2.6 Procedures 31
3.2.7 Planned interventions 31
3.2.8 Critical barriers to trade 33

3.3 ICDs/Dry ports 33
3.3.1 Embakasi ICD (Nairobi) 34
3.3.2 Kisumu ICD 35

3.3.3 Eldoret ICD....36
3.3.4 Planned interventions....36
3.3.5 Critical barriers to trade....36

3.4 Inland ports....36
3.4.1 Port Bell....37
3.4.2 Jinja....38
3.4.3 Kisumu....41
3.4.4 Planned interventions....42
3.4.5 Critical barriers to trade....43

3.5 Lake transport on Lake Victoria....44
3.5.1 Services....44
3.5.2 Safety....47
3.5.3 Planned interventions....48
3.5.4 Critical barriers to trade:....48

3.6 Road....49
3.6.1 Infrastructure....49
3.6.1 Procedures....53
3.6.2 Planned interventions....55
3.6.3 Critical barriers to trade....57

4. PERFORMANCE ANALYSIS OF THE CENTRAL CORRIDOR....58

4.1 Sea port of Dar es Salaam....58
4.1.1 Infrastructure....59
4.1.2 Accessibility....63
4.1.3 Procedures....67
4.1.4 Planned interventions....67
4.1.5 Critical barriers to trade:....70

4.2 Rail....72
4.2.1 Organization of the Railways on the Central Corridor in Tanzania....72
4.2.2 Permanent way on the Central Corridor....73
4.2.3 Rolling stock....87
4.2.4 Operation and traffic....94
4.2.5 Signaling, telecommunications, train control....96
4.2.6 ICD(s) Inland Container Depots and Marine Interface....101
4.2.7 Planned interventions....107
4.2.8 Critical barriers to trade....110

4.3 Inland ports on Lake Victoria....111
4.3.1 Mwanza Ports....111
4.3.2 Musoma Port....115
4.3.3 Kemondo Bay....116
4.3.4 Bukoba....117
4.3.5 Planned interventions....118
4.3.6 Critical barriers to trade....119

4.4 Inland ports Lake Tanganyika....119
4.4.1 Kigoma....119
4.4.2 Bujumbura....120
4.4.3 Planned interventions....123
4.4.4 Critical barriers to trade:....125

4.5 Lake transport on Lake Tanganyika....125
4.5.1 Services....126

4.5.2 Safety 127
4.5.3 Planned interventions 128
4.5.4 Critical barriers to trade 128

4.6 Road 129
4.6.1 Infrastructure 129
4.6.1 Procedures 133
4.6.2 Planned interventions 134
4.6.3 Critical barriers to trade 136

5. REVIEW OF THE INSTITUTIONAL FRAMEWORK - INTRODUCTION 137

5.1 Objective 137

5.2 Structure 138

6. REVIEW OF CURRENT LEGAL AND INSTITUTIONAL FRAMEWORK 139

6.1 Introduction 139

6.2 Regional and national legal and regulatory framework 140
6.2.1 EAC regional co-operation agreements 140
6.2.2 Railways 145
6.2.3 Ports & waterways 149
6.2.4 Road transport 152

6.3 Review in detail the current procedural steps for transit cargo, compared to international best practice 175
6.3.1 Introduction 175
6.3.2 Current procedural steps for transit cargo 176
6.3.3 International best practice 195
6.3.4 Conclusions and recommendations 198

6.4 Multimodal licenses and regulation 200
6.4.1 Introduction 200
6.4.2 Railways 200
6.4.3 Ports & waterways licensing 203
6.4.4 Road transport licensing 209

7. OVERVIEW OF SECTOR INSTITUTIONS 221

7.1 Introduction 221

7.2 Sector institutions 222
7.2.1 EAC region 223
7.2.2 Burundi 224
7.2.3 Kenya 225
7.2.4 Rwanda 226
7.2.5 Uganda 227
7.2.6 Tanzania 227

8. REVIEW OF SECTOR POLICY 228

8.1 Introduction 228

8.2 Current policy framework 229

8.2.1 General....229
8.2.2 Burundi....232
8.2.3 Kenya....234
8.2.4 Rwanda....236
8.2.5 Tanzania....237
8.2.6 Uganda....238

8.3 Degree of compliance of domestic policy with regional policy....239
8.3.1 Overview....240

8.4 Identify any changes, or potential impediments, at either level, to the introduction of an integrated rail-centric intermodal service....241

9. REVIEW OF FINANCING OF SECTOR....242

9.1 Introduction....242

9.2 Summary of challenges regarding financing....243

9.3 Overview transport expenditures within EAC countries....244
9.3.1 The Roads sub sector....244
9.3.2 The Railways sub-sector....245
9.3.3 The Ports sub-sector....246
9.3.4 TANZANIA....246
9.3.5 UGANDA....247
9.3.6 KENYA....248
9.3.7 RWANDA....250

10. STRATEGIC APPROACH FOR THE IDENTIFICATION OF THE DEVELOPMENT OPTIONS....256

11. DEVELOPMENT OPTIONS FOR THE NORTHERN CORRIDOR....258

11.1 Port of Mombasa....258
11.1.1 Level 2: Target capacity bottlenecks & black spots....258
11.1.2 Level 4: Increase capacity....262

11.2 Mombasa – Kampala....262
11.2.1 Level 1: Reinstatement of the existing regional network....262
11.2.2 Level 2: Target capacity bottlenecks & black spots....263
11.2.3 Level 3: Facilitate access to the corridor....264
11.2.4 Level 4: Increase capacity....265

11.3 Kampala – Kigali – Bujumbura....266
11.3.1 Level 1: Reinstatement of the existing regional network....266
11.3.2 Level 2: Target capacity bottlenecks & black spots....266
11.3.3 Level 4: Increase capacity....266

11.4 Lake Victoria....267
11.4.1 Level 1: Reinstatement of the existing regional network....267
11.4.2 Level 3: Facilitate access to the corridor....267
11.4.3 Level 4: Increase capacity....271

11.5 Institutional development options....271

11.6 Map of development options level 1....282

11.7 Map of development options level 2 284

11.8 Map of development options level 3 286

11.9 Map of development options level 4 288

12. DEVELOPMENT OPTIONS FOR THE CENTRAL CORRIDOR 290

12.1 Port of Dar es Salaam 290
12.1.1 Level 2: Target capacity bottlenecks & black spots 290
12.1.2 Level 4: Increase capacity 292

12.2 Dar es Salaam – Tabora – Kigoma/Mwanza 293
12.2.1 Level 1: Reinstatement of the existing regional network 293
12.2.2 Level 2: Target capacity bottlenecks & black spots 295
12.2.3 Level 4: Increase capacity 299

12.3 Lake transport on Lake Tanganyika 300
12.3.1 Level 1: Reinstatement of the existing regional network 300
12.3.2 Level 2: Target capacity bottlenecks & black spots 301
12.3.3 Level 4: Increase capacity 305

12.4 Isaka - Kigali - Bujumbura 305
12.4.1 Level 1: Reinstatement of the existing regional network 305
12.4.2 Level 2: Target capacity bottlenecks & black spots 307
12.4.3 Level 3: Facilitate access to the corridor 307
12.4.4 Level 4: Increase capacity 308

12.5 Institutional development options 308

12.6 Map of development options level 1 309

12.7 Map of development options level 2 311

12.8 Map of development options level 3 313

12.9 Map of development options level 4 315

APPENDIX A - SUMMARY OF THE MAIN PROVISIONS OF REGIONAL CO-OPERATION INSTRUMENTS 317

Overview 317

East African Community Treaty 319
EAC Common market protocol 321
Tripartite Agreement on Road Transport 321
Tripartite Agreement on Inland Waterway Transport 321

Common Market of Eastern and Southern Africa (COMESA Treaty) 323
Protocol on transit trade and transit facilities 323
Protocol on third party motor vehicle insurance scheme 323
COMESA Single carrier license 324

Northern Corridor Transit and Transport Agreement 324
Protocol Nº 1: Maritime Port Facilities 325
Protocol Nº 2: Routes And Facilities 325
Protocol Nº 3: Customs Controls And Operations 325

Protocol Nº 4: Documentation And Procedures 325
Protocol Nº 5: Transport Of Goods By Rail 326
Protocol Nº 6: Transport Of Goods By Road 326
Protocol Nº 7: Inland Waterways Transport Of Goods 326
Protocol Nº. 8: Transport By Pipeline 326
Protocol Nº. 9: Multimodal Transport Of Goods 326
Protocol Nº 10: Handling Of Dangerous Goods 326
Protocol Nº 11: Measures Of Facilitation For Transit Agencies, Traders And Employees 327

Central Corridor Transit Transport Facilitation Agreement 327

APPENDIX B – BACKGROUND ON PREVIOUS RECOMMENDATIONS LEGAL AND REGULATORY FRAMEWORK 328

APPENDIX C – STAKEHOLDERS.....334

APPENDIX D – INSTITUTIONS 335

LIST OF ACRONYMS

AfDB	African Development Bank
AMPF	Autorite Maritime, Portuaire et Ferroviaire (Burundi)
BIO	Belgian Investment Company for Developing Countries
CFS	Container freight station
COMESA	Common Market for Eastern and Southern Africa
DRC	Democratic Republic of Congo
DWT	Deadweight tonnage
EAC	East African Community
FMCG	Fast-Moving Consumer Goods
FMO	Financierings-Maatschappij voor Ontwikkelingslanden
GOT	Government of Tanzania
ICD	Inland container depot
ICT	Information and Communication Technologies
IFC	International Finance Corporation
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
KeNHA	Kenya National Highways Authority
KfW	Kreditanstalt für Wiederaufbau
KPA	Kenya Port Authority
KRA	Kenya Revenue Authority
KRC	Kenya Railways Corporation
LCL	Less-than-container load
LOA	Length overall
LoLo	Lift-on/lift-off
LTA	Lake Tanganyika Authority
MCT	Mombasa Container Terminal
MoU	Memorandum of Understanding
NCTA	Northern Corridor Transit Agreement
NCTTCA	Northern Corridor Transit Transport Coordination Authority
NTB	Non-tariff barrier
OdR	Office des Routes
ODR	Office des Routes
ONATRA	Office National des Transports
OSBP	One Stop Border Post
PPP	Public Private Partnership

RADDEx	Revenue Authorities Digital Data Exchange
RAHCO	Reli Assets Holding Company
REC	Regional Economic Community
RMG	Rail mounted gantry crane
RoRo	Roll-on/roll-off
RTDA	Rwanda Transport Development Agency
RTG	Rubber tyred gantry crane
RURA	Rwanda Utilities Regulatory Authority
RVF	Régie des Voies Fluviales
RVM	Regie des Voies Maritimes
RVR	Rift Valley Railways
SADC	Southern African Development Community
SME	Small and medium enterprise
STS	Ship to shore
SUMATRA	Surface and Marine Transport Regulatory Authority
TANROADS	Tanzania National Roads Agency
TEU	Twenty-foot equivalent unit
TGS	Twenty-foot ground slot
TICTS	Tanzania International Container Terminal Services
TLB	Transport Licensing Board
TOR	Terms of reference
TPA	Tanzanian Ports Authority
TRA	Tanzania Revenue Authority
TRC	Tanzania Railways Corporation
TRL	Tanzania Railways Limited
UNRA	Uganda National Roads Authority
URC	Uganda Railways Corporation
VOC	Vehicle operating cost
WB	The World Bank

1. INTRODUCTION

The present version of the Draft Technical Report 1 presents a summary of the findings resulting from the analyses performed in the following tasks:

- Task 1: Review of Current Condition of Infrastructure, Services, Planned Interventions, and Customer Base
- Task 2: Review of the Institutional Framework
- Task 3: Identification of Development Options.

The present document constitutes the basis for a technical workshop to be held with the Steering committee on November 13.

2. ECONOMIC ENVIRONMENT AND CUSTOMER BASE

This chapter presents a short summary of the current economic environment of the Region, the current state of the traffic, trade characteristics and the customer base.

2.1 ECONOMIC ACTIVITIES IN THE REGION

2.1.1 Macroeconomic indicators

The general development indicators are presented in the following table.

Table 2-1: Development indicators for the EAC Member States

Country	*Population (millions) 2012*	*GDP at current purchaser's prices (USDbn) 2012*	*GDP, constant prices, percent change 2012*	*GDP per capita, current prices (USD) 2012*
Burundi	8.8	2.47*	4.0*	281.8*
Kenya	42.1	40.70	4.6*	966.6
Rwanda	10.4	7.10	8.0	681.5
Tanzania	44.9*	28.25*	6.9*	628.7*
Uganda	35.6	21.24	2.8	595.9
Total/ Average EAC	141.88	99.76	-	703.2

Source: IMF

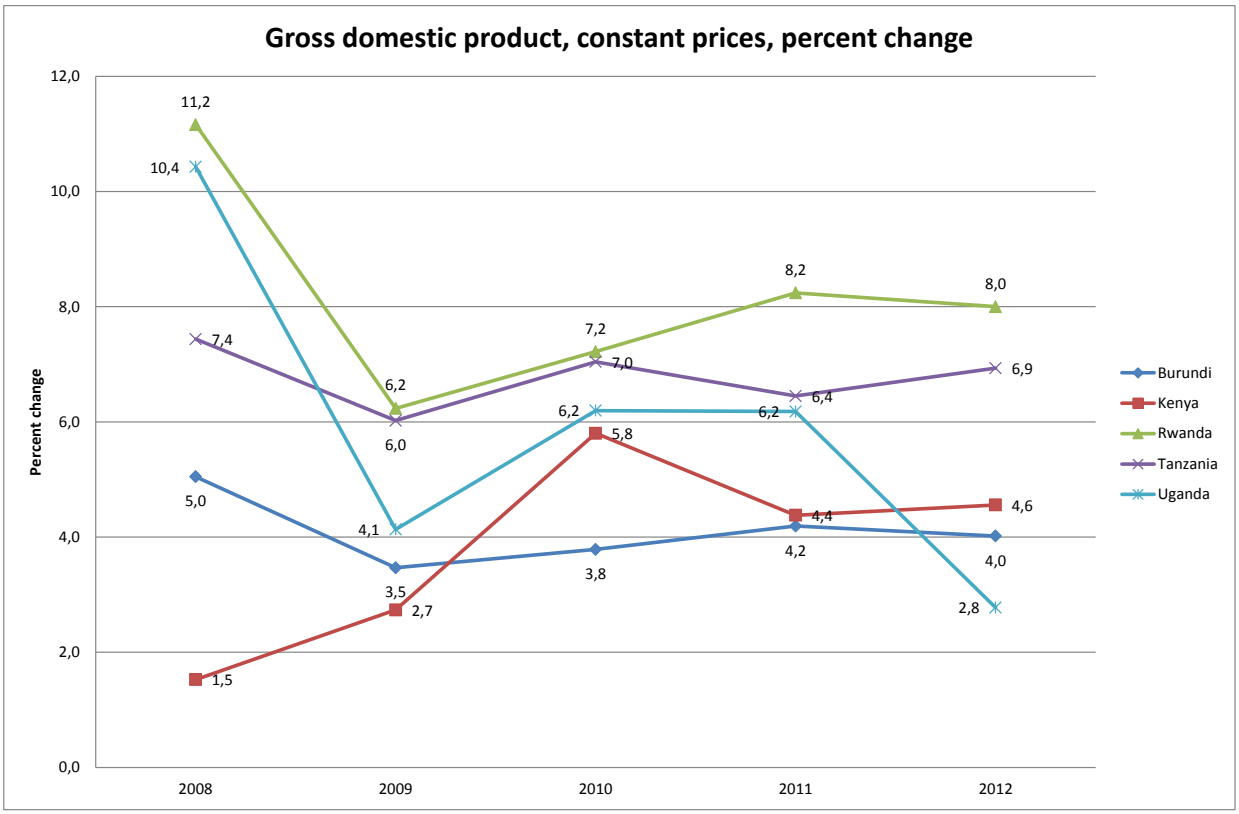
*: estimate

Total population in the EAC Member States in 2012 amounts to almost 142 million people. Burundi and Rwanda are the least populated countries, while Tanzania is the most populated country.

Total GDP at purchaser's prices (in current USD) in the EAC Member States in 2012 amounts to almost 100 billion USD. Burundi and Rwanda present the lowest values of GDP, while Kenya's GDP is the highest in the region.

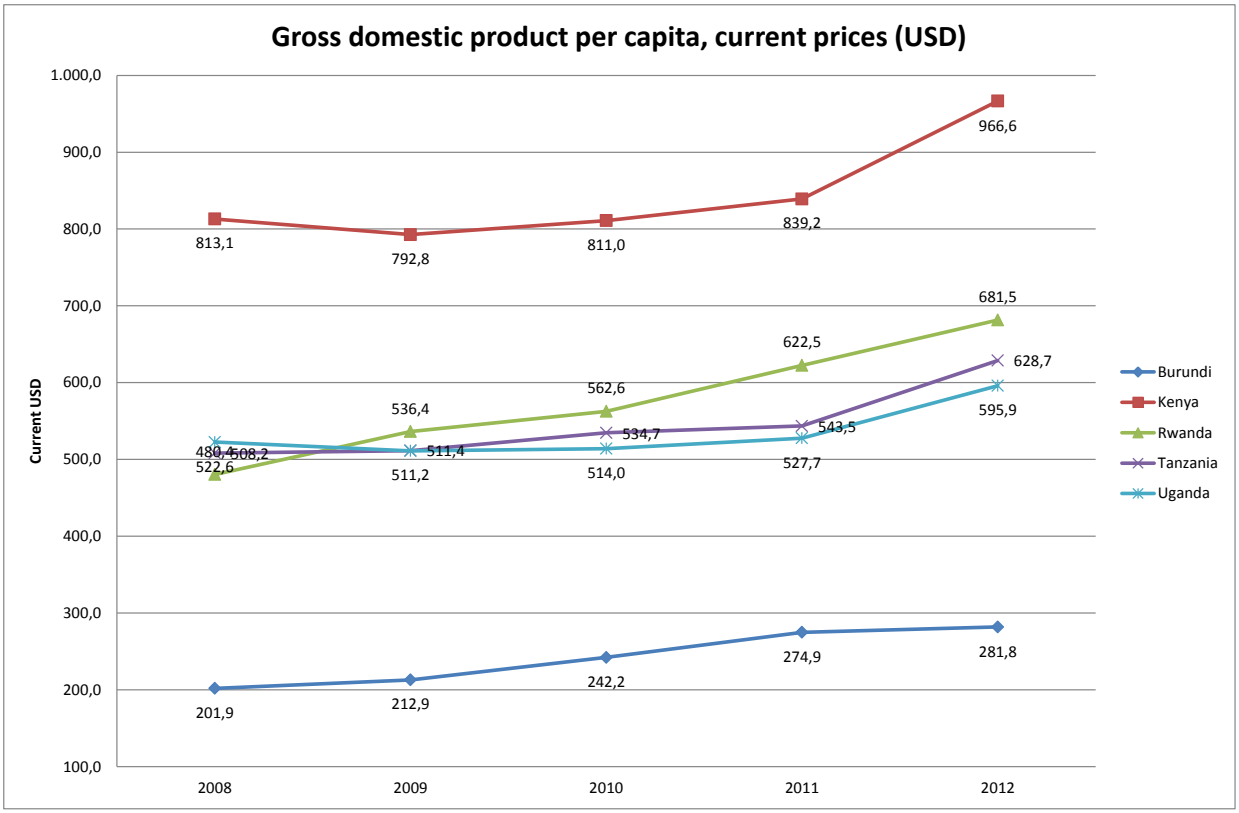
The Region presents a global growing economy. In 2012, in constant prices, the percent changes of the GDP range from 2.8% in Uganda to 8.0% in Rwanda.

The following graph presents the evolution of the percent changes of the GDP from 2008 to 2012.



GDP per capita (in current USD) reaches on average 703 USD in the EAC, with the lowest values in Burundi and the highest in Kenya.

The following graph presents the evolution of the GDP per capita in current USD from 2008 to 2012.



2.1.2 Regional economy potential

The region is characterised by a high potential in several productive sectors such as:

- agriculture,
- fisheries,
- mining/mineral,
- manufacturing,
- services.

In relation to the freight transport system in the region, the potential of economic sectors such as agriculture, fisheries and mining/mineral presents justifications for improving the quality of transport services and accessibility to the transport network, considered in the context of economic integration and development of the Region.

In this section some statistics of the Agriculture, Mining and Fisheries sectors are presented.

2.1.2.1 Agriculture Sector

Agriculture represents the main productive sector in the Region. It deals essentially with the production of coffee, tea, sugar cane, cotton, tobacco and sisal which need adequate infrastructure and services for transport and distribution.

Table: Production for selected crops, '000 tonnes

Crops	States/Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Coffee	Burundi	25	21	36	44	12	38	13	30	16	31	19
	Tanzania	58	54	76	39	34	46	34	58	40	61	56
	Uganda	197	204	151	170	158	133	175	219	196	167	191
	Kenya	52	52	55	48	45	48	53	42	54	42	36
	Rwanda	18	20	14	29	17	22	15	21	16	19	16
	EAST AFRICA	**351**	**350**	**333**	**330**	**266**	**287**	**290**	**369**	**322**	**320**	**319**
Tea	Burundi	44	33	35	38	39	31	34	32	32	38	41
	Tanzania	119	111	132	128	133	123	159	35	33	32	33
	Uganda	33	34	36	36	38	34	45	46	49	49	35
	Kenya	295	287	295	325	329	311	370	346	314	399	378
	Rwanda	18	15	16	14	17	17	20	20	21	22	24
	EAST AFRICA	**509**	**480**	**514**	**541**	**555**	**516**	**628**	**479**	**449**	**540**	**511**
Sugar cai	Burundi	180	151	171	176	168	168	177	189	178	189	207
	Tanzania	1.334	1.523	1.813	2.342	2.346	2.501	2.041	3.500	-	2.570	3.019
	Uganda	1.510	1.893	1.985	2.180	2.161	2.217	2.173	2.644	3.204	3.324	2.969
	Kenya	3.551	4.501	4.204	4.661	4.801	4.933	5.204	5.112	5.611	5.710	5.339
	Rwanda	60	70	70	80	60	58	97	63	100	115	na
	EAST AFRICA	**6.635**	**8.138**	**8.244**	**9.439**	**9.536**	**9.877**	**9.692**	**11.508**	**9.093**	**11.907**	**11.533**

Source: Partner States, East African Community Statistic Portal

2.1.2.2 Mining/Mineral Sector

The EAC Region mining and mineral potential is made up of several types of minerals. The following table depicts the mining and mineral production. Kenya and Tanzania are the main producers.

Table 2-2: EAC mining and mineral production[1]

Product	Partner State/Years	2003	2004	2005	2006	2007	2008	2009	2010
Soda Ash- '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	-	-	-	-	-	-	-	-
	Uganda		-	-	-	-	-	-	-
	Kenya	353	354	360	374	387	503	405	474
	Rwanda	na	na	na	na	na	na	na	na
Fluospar - '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	-	-	-	-	-	-		
	Uganda		-	-	-	-	-		-
	Kenya	80	118	110	132	85	130	6	41
	Rwanda	na	na	na	na	na	na	na	na
Salt - '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	59	57	51	35	35	26	27	34
	Uganda		-	-	-	-	-		-
	Kenya	21	31	27	35	12	24	24	6
	Rwanda	na	na	na	na	na	na	na	na
Crushed Refined soda - '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	-	-	-	-	-			
	Uganda		-	-	-	-			-
	Kenya	576	606	640	663	843	866	948	959
	Rwanda	na	na	na	na	na	na	na	na
Gold - '000 Tons	Burundi	3	3	4	4	-	-	-	-
	Tanzania	48	48	52	40	40	36	39	39
	Uganda		0	0	0	6	-		-
	Kenya	0,002	0,001	0,001	0,000	0,003	0	0,001	0,002
	Rwanda	na	na	na	na	na	na	na	na
Diamond - '000 Carats	Burundi	-	-	-	-	-	-	-	-
	Tanzania	236	304	220	272	283	236	182	80
	Uganda		-	-	-	-	-		-
	Kenya	na	na	na	na	na	na	na	na
	Rwanda	na	na	na	na	na	na	na	na
Gemstone - '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	1.532	1.614	628	2.493	2.063	1.858	1.068	1.250
	Uganda		-	-	-	-			-
	Kenya		0,00	0,01	0,01	0,01	0,02	0,04	0,17
	Rwanda	na	na	na	na	na	na	na	na
Gypsum - '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	33	59	23	33	3	56	8	27
	Uganda		0	0	0,12	0,17	0		-
	Kenya	4	4	5	6	5	5	-	-
	Rwanda	na	na	na	na	na	na	na	na
Coal - '000 Tons	Burundi	-	-	-	-	-	-	-	-
	Tanzania	55	65	75	18	27	15	-	0,18
	Uganda		-	-	-	-			-
	Kenya	-	-	-	-	-	-	-	-
	Rwanda	na	na	na	na	na	na	na	na
Employment in Mining (Number)	Burundi	1.373	1.420	1.468	1.518	-	-	-	-
	Tanzania	5260	6324	8346	-	-	-	-	-
	Uganda		-	-	-	-	-		-
	Kenya	-	1.719	1.745	1.781	1.808	1.843	1.737	1.901
	Rwanda	346	373	873	1.224	1.493	1.493		
Mining to GDP Ratio (Percentage)	Burundi	-	-	-	-	-	-	-	-
	Tanzania	2	2	2	3	3	3	3	-
	Uganda		-	-	-	-	-		-
	Kenya	0,23	0,18	0,18	0,41	0,57	0,58	0,40	0,58
	Rwanda	0,00	0,01	0,01	0,01	0,01	0,01	0,01	0,01

2.1.2.3 Fisheries Sector

The Region has several lakes and access to the Indian Ocean. These assets allowed the Region to develop an important fishing activity.

[1] Partner States, East African Community Statistic Portal

Table 2-3: Fish catch, '000 tonnes

States/Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Burundi	10	14	14	14	10	14	12	19	15	18	20
Tanzania	336	324	351	363	376	341	328	325	336	347	341
Uganda	221	222	247	435	412	362	362	365	367	386	421
Kenya	163	179	120	136	147	158	136	135	134	141	149
Rwanda	7	8	6	7	8	8	8	13	14	14	-
Total	**737**	**747**	**738**	**955**	**953**	**883**	**846**	**857**	**865**	**906**	**-**

2.2 TRADE CHARACTERISTICS

The trade in East Africa is overseas-oriented, with imports significantly higher than exports as shown in the following table:

Table 2-4: Total trade by EAC Partner States (US$ Million)[2]

	Kenya		Uganda		Tanzania		Burundi		Rwanda	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
2002	2.150,18	**3.273,35**	467,61	**1.073,75**	886,77	**1.598,67**			20,00	**87,63**
2003	2.411,88	**3.711,50**	534,11	**1.375,11**	1.131,40	**1.958,82**	3,73	**158,98**	22,80	**92,40**
2004	2.704,85	**4.604,51**	644,29	**1.726,24**	1.400,42	**2.420,72**	9,03	**145,40**	25,00	**130,11**
2005	3.447,06	**5.864,94**	812,86	**2.054,14**	1.571,28	**3.043,47**	7,58	**188,90**	34,90	**373,28**
2006	3.481,19	**7.232,77**	962,19	**2.557,31**	2.000,12	**3.864,10**	15,59	**244,60**	33,00	**143,40**
2007	4.080,02	**8.988,98**	1.336,67	**3.495,39**	2.007,00	**5.919,02**	10,59	**235,50**	40,00	**207,10**
2008	5.054,16	**11.291,59**	1.724,30	**4.525,86**	3.119,30	**6.907,80**	10,85	**359,90**	46,20	**394,20**
2009	4.462,48	**10.188,45**	1.567,61	**4.257,60**	2.982,45	**6.531,22**	18,35	**419,19**	47,30	**449,60**
2010	5.172,01	**11.954,68**	1.618,60	**4.664,34**	3.976,79	**8.070,36**	101,23	**508,83**	54,20	**503,60**
2011	5.754,23	**14.814,31**	2.159,08	**5.630,88**	4.771,62	**11.184,25**	115,93	**699,85**	70,80	**589,30**

The general trend of the trade presents a growth which reflects the dynamism of the Region.

2.3 TRAFFIC CHARACTERISTICS

The traffic patterns in the EAC Region generally follow the two main corridors i.e. the Northern corridor and the Central corridor which respectively start at Mombasa Port and Dar es Salaam Port.

The traffic related to the Region can be divided into three main categories. The first one deals with the traffic inside each State (Domestic traffic). The second category, Regional traffic, concerns the traffic between the Partner States while the last one, Transit traffic, corresponds to traffic with neighbour countries (Eastern DRC, Southern Sudan and Zambia).

2.3.1 Traffic in the corridors

The following data come form the Corridor Diagnostic Study, April 2011.

The observed traffic from the collected data shows that the total traffic on the Northern Corridor is the triple of traffic on the Central Corridor. The modal split shows that the railway share is low compared to road.

[2] Partner States, East African Community Statistic Portal

Table 2-5: Northern and Central Corridor traffic by type of mode (000 tons)[3]

Corridor	Type of Traffic	Road	Rail	Total	Rail Share (%)
Northern Corridor	Transit	5509	417	5926	**7**
	Regional	2974	151	3125	**4,8**
	Domestic	11817	622	12439	**5**
	Total	20300	1190	21490	**5,5**
Central Corridor	Transit	357	111	468	**23,7**
	Regional	658	32	690	**4,6**
	Domestic	5617	296	5913	**5**
	Total	6632	439	7071	**6,2**
Total		**26932**	**1629**	**28561**	**5,7**

The next table presents the types of commodity transported on the corridors.

[3] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

Table 2-6: Type of commodity on the corridor[4]

Northern Corridor		*Central Corridor*	
Commodity type	(share in total Trade%)	Commodity type	(share in total Trade%)
Oil	26	Petroleum and petrleum products	22,1
Grains and flours	10	Rice	8,5
Clinkers and stones	7	Cement	7,5
Vegetable oils	5	Shops Goods	6,7
Cast iron, Iron and Steel	4	Mineral Sand	6,2
Sugar	3	Building Materials	3,9
Fertilizer	2	Beer	3,9
Cement	4	Wheat	3,5
Tea	2	Other Agriculture products	3,1
Soda	2	Soda	2,9
Vegetables	2	Clothing	2,6
Coffee	1	Cookingoil	2,5
Various ores	0	Flour	2,4
Total	100	Salt	2
		Equipment	1,8
		Sugar	1,6
		Steel and Stee products	1,6
		Chemicals	1,3
		Bitumen	1,2
		Coffee	1,2
		Cassava	1,2
		Fish	1,1
		Tabacco	0,8
		Bananas	0,7
		Maize	0,6
		Malt	0,6
		Cattle	0,5
		Furniture	0,4
		Miscellious	8
		Total	100

2.3.2 Traffic in the main ports

Mombasa is the largest port of the region with 21.9m tonnes of cargo handled in 2012, compared with 12.1m tonnes in Dar es Salaam.

As mentioned above in the corridor traffic, more than fifty per cent of the traffic handled in Mombasa port is destined to the local market (domestic traffic inside Kenya).

The table below describes the percentage of traffic towards landlocked countries of the Region and Eastern DRC.

In this context, Mombasa Port in Kenya represents some 80% more traffic than Dar es Salaam port.

[4] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

Table 2-7: Comparison Mombasa Port vs. Dar es Salaam Port Traffic towards land-locked[5] countries

	2008			2009		
Countries	Mombasa	Dar es Salaam	Total ('000 tons)	Mombasa	Dares Salaam	
Uganda	97%	3%	3779	97%	3%	3936
DRC	37%	62%	862	37%	62%	992
Rwanda	71%	29%	461	68%	32%	431
Burundi	10%	90%	395	6%	94%	416

2.4 IMPORTANT SHIPPERS AND CONSIGNEES

Based on the literature review (mainly CPCS, January 2009, East African Railways Master Plan), information provided by the Shippers Council of Eastern Africa, and additional information collected during the interviews with the stakeholders, the following customer base has been mapped.

Most of them operate at the regional scale.

2.4.1 Logistics and shipping companies

- Allpack Industries
- Bash Hauliers Ltd
- Bolloré Africa Logistics
- Cargo World Logistics Ltd.
- Chai Trading Co. Ltd
- CMA-CGM
- DAMCO Logistics (K) Ltd.
- DHL Global Transport
- Dodhia Packaging Ltd.
- East African Packaging Ltd.
- Evergreen
- Freight in Time
- General Cargo Services Ltd.
- Interfreight
- Kenfreight
- Kenya Groupage Cargo Handling
- Maersk
- Makupa Transit Shade Ltd (CFS)
- Meridian Shipping (EA) Logistics Ltd
- Mombasa Container Terminals
- MSC
- Nampak Kenya LtdPan Africa Logistics Ltd
- Panal Freighters Ltd
- PIL
- Schenker Ltd (Logistics)
- SDV Transami Kenya

[5] Transport Sector Investment Programme Intermodal Study Tanzania, 2011

- Sea Con Kenya Ltd
- Siginon Group (Logistics)
- Speedex Logistics Ltd
- TNT Express Worldwide (K) Ltd
- Union Logistics Ltd

2.4.2 Freight Forwarders/ Associations

- Andy Forwarders Services Ltd
- Bahari Forwarders Ltd
- Burundi Chambre Sectorielle des transports et transitaires - East Africa Business Council
- Freight Forwarder Kenya
- Fresh Produce Exporters Association of Kenya
- Kenya International Freight & Warehousing Association
- Kenya Transport Association
- Kibos Sugar & Allied Industries Ltd
- Naushad Trading Company
- Rwanda Association of freight forwarders
- Rwanda Private Sector Federation
- Uganda Amalgated Transport and General Workers' Union
- Wigglesworth Exporters Limited

2.4.3 Coffee Producers/Importers/Exporters/Associations

- Afri Tea & Coffee Blenders
- Coffee and great Lakes Coffee
- East African Sea Food
- Kawacom
- Kenya Coffee Traders Association
- Kyalaganyi
- Olam
- Pan Afric Impex
- Rawcof
- Rwandex
- Tanganyika Coffee Growers Association (TCGA)
- Tanganyika Instant Coffee Company
- Tanzania Coffee Association
- Tanzania Coffee Board (TCB)
- Ugacof

2.4.4 Tea Producers/Importers/Exporters/Associations

- Chai Bora
- East African Tea Trade Association
- Global Tea and Commodities (K) Ltd
- James Finlay (Mombasa)

- Kenya Tea Development Agency Ltd
- L A B International Kenya Ltd
- Rwanda Association of tea producers
- Stansand (Africa) Ltd
- Tea Board of Kenya
- The Tea Board of Tanzania (TBT)
- Uganda tea Association
- Unilever Kenya Ltd

2.4.5 Mining/mineral producers

- Athi River Mining
- Geofields Tanzania Ltd
- Interstate Mining & Minerals Limited (Tanzania)
- Kenya Fluorspar Corporation (KFC)
- Kermas Holding
- K-Logistic Company Limited
- Magadi Soda
- Minjingu Mines and Fertilizer Ltd
- SABU Gold Mining Company (Burundi)
- Southern and Eastern African Mineral Centre (SEAMIC)

2.4.6 Cement producers/ shippers

- Bugarama (Burundi)
- Burundi Cement Company (BUCECO)
- East Africa Cement Producers Association (EACPA)
- Hima Cement (Uganda)
- Lafarge, Bamburi Cement of Mombasa and Nairobi (Kenya)
- Rwanda Cement Factory (CIMERWA)
- Tanga Cement (Tanzania)
- Tanzania Portland Cement Comp Ltd
- Tororo Cement Limited (Uganda)
- Twiga Cement (Tanzania)

2.4.7 Maize and Wheat producers/ shippers

- Export Trading and Olam
- Golden Harvest
- Mabati Rolling Mills
- Mombasa Maize Millers
- Premier Mills
- Unga Millers

2.4.8 Petroleum products

- Caltex
- Kapa Oil Refineries
- Kenoil-Kobil
- Shell
- Total

2.4.9 Food products, Consumer goods

- Bakhresa Group (Azam)
- Bidco Oil refineries
- Cadbury Kenya Ltd
- Kenafric Industries Ltd
- Kim Fay E.A. Ltd.
- Master Mind Tobacco
- New KCC (dairy)

2.4.10 Fertilizer importers

- Devji Meghji & Brothers Ltd
- KTDA
- Yara East Africa Ltd

3. PERFORMANCE ANALYSIS NORTHERN CORRIDOR

The performance of a transportation system consists of the performance of its components, i.e. all links along the corridors and their feeder lines (rail, road, inland waterways) and the nodes that interconnect the different transport services (sea ports, inland ports and dry ports/ICDs).

The performance of each component is determined by several characteristics:

- Condition of the infrastructure
- Services provided
- Procedural requirements (non-physical barriers to trade)[6]

The analysis of these characteristics is presented hereafter for the Northern Corridor, successively for the following components:

- Mombasa sea port
- Rail
- ICDs/ Dry ports
- Inland ports
- Lake transport on Lake Victoria
- Road.

3.1 MOMBASA SEA PORT

Mombasa Port is managed and operated by the Kenya Ports Authority (KPA) under supervision of the Kenya Ministry of Transport. In 2012, the port of Mombasa handled a total of 21.8 million tons up from 19.7 million tons in 2011, a growth of 10 per cent. Container traffic rose to 903,463 TEUs from 770,804 TEUs handled in 2011, an increase of 17.2 per cent.

The table below presents the cargo throughput in the port of Mombasa for the period 2005-2012. As can be seen in the table, containers have become the major cargo segment in the port. The port of Mombasa mainly serves as an import hub; approximately 85% of the total cargo flow consists of imports.

Table 3-1: Cargo throughput in the port of Mombasa (thousand tons)

	2005	2006	2007	2008	2009	2010	2011	2012
Containers (tonnages)								
Import	2,645	2,970	3,761	3,959	4,086	4,591	5,226	5,954
Export	1,680	1,625	1,934	1,996	1,952	2,218	2,337	2,626
Total	**4,325**	**4,595**	**5,695**	**5,955**	**6,038**	**6,809**	**7,563**	**8,580**
Conventional Cargo								
Import	1,009	1,129	1,105	1,020	1,349	1,397	1,298	1,302
Export	139	185	168	299	269	192	171	153

[6] Corruption and unofficial payments, checkpoints, bureaucratic procedures and documentation, security and risk, non-implementation of the international conventions, low level of computerization, insurance and tax levels, …

	2005	2006	2007	2008	2009	2010	2011	2012
Total	**1,148**	**1,314**	**1,273**	**1,319**	**1,618**	**1,589**	**1,469**	**1,455**
Dry Bulk								
Import	2,128	2,344	2,722	2,891	4,641	3,827	3,807	4,811
Export	286	313	205	200	62	70	122	106
Total	**2,414**	**2,657**	**2,927**	**3,091**	**4,703**	**3,897**	**3,929**	**4,917**
Liquid Bulk								
Import	4,918	5,403	5,474	5,441	6,431	6,386	6,607	6,665
Export	173	132	167	190	167	95	158	160
Total	**5,091**	**5,535**	**5,641**	**5,631**	**6,598**	**6,481**	**6,765**	**6,825**
Totals								
Import	10,700	11,846	13,062	13,311	16,507	16,201	16,938	18,732
Export	2,278	2,255	2,474	2,685	2,450	2,575	2,788	3,045
Grand Total	**12,978**	**14,101**	**15,536**	**15,996**	**18,957**	**18,776**	**19,726**	**21,777**

3.1.1 Infrastructure

The port of Mombasa has two harbours: Kilindi Harbour on the south-west side of Mombasa Island and Mombasa Old Port on the east side of the island. The latter is only used by dhows, spall coasters and bulk cement carriers.

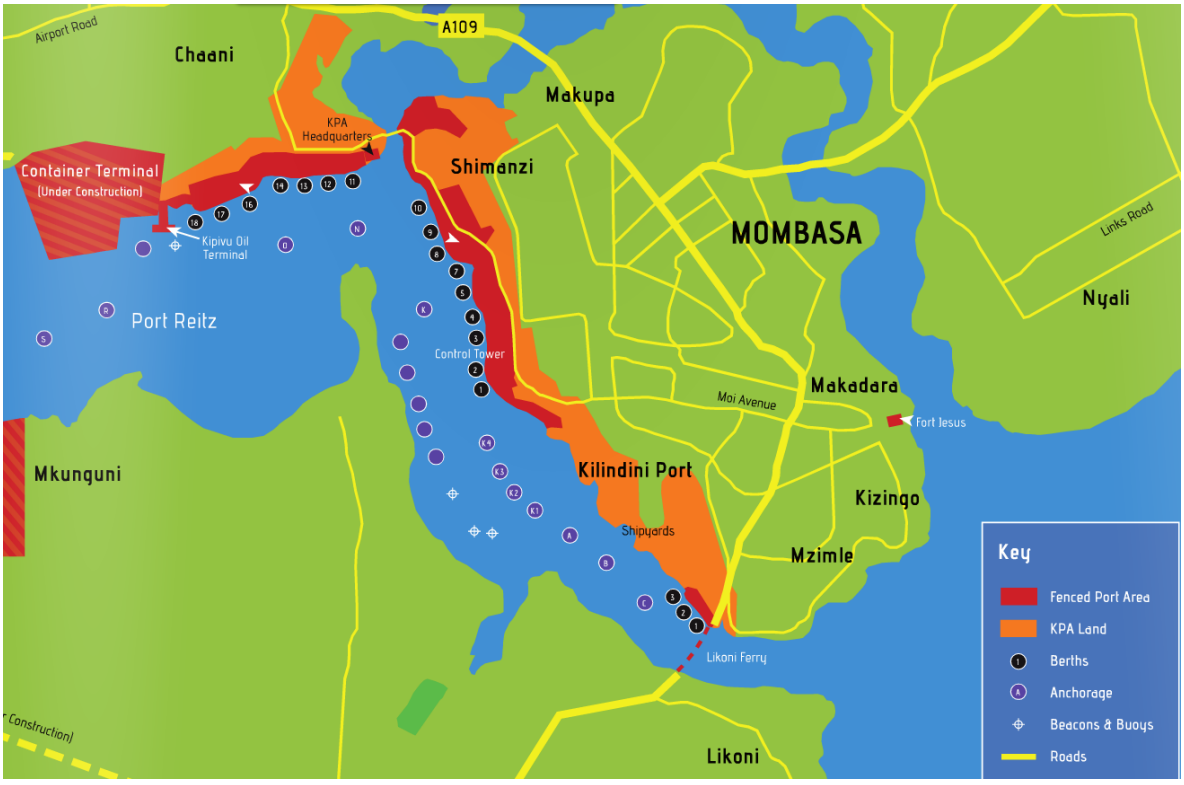


Figure 1: Port of Mombasa

Figure 2: Aerial view on the port of Mombasa (Google Earth)

The most Southern berths close to the Likoni ferry are the Mbaraki wharfs. Kilindi Harbour consists further of 19 berths. Most berths were planned to accommodate 5,000 DWT class general cargo vessels, and constructed before the 1970s when containerised transport was introduced; most other wharves and piers were designed with −8 m or −10 m depth. The table below presents an overview of the 19 berths; the berth cargo segment focus, berth length and berth depth.

Table 3-2: Berths in Mombasa

Berth No.	Berth Type	Length (m)	Depth (m)
1	Conv/Pass/RoRo	173.10	10.00
2	Conv/Pass	166.40	10.00
3	Conventional	166.40	10.00
4	Conventional	190.20	10.00
5	Conv/RoRo	178.60	10.00
7	Conventional	208.20	9.75
8	Conventional	170.70	9.75
9	Conventional	179.80	10.36
10	Conventional	204.20	9.75
11	Conv/Container	184.40	9.45
12	Conv/Container	182.90	9.75
13	Container	174.00	9.75
14	Container	181.40	9.45
16	Container	177.70	12.50
17	Container	182.90	12.50
18	Container	239.00	12.50
19	Container	240.00	13.50

Currently two thirds of the 19 berths (berths 1-12) serve as general cargo wharves, handling general cargo, including bags, steel, roll-on/roll-off, and other cargoes. Also some bulk cargo is handled here,

like grains, fertilizers, etc. and Ro-Ro facilities are available at the Berths 1 and 5. At Berth 9, the Magadi Soda Company handles exports of soda ash at a dedicated facility. At Berth 10, Gulf Stream Ltd also operates a bulk liquid-storage terminal within the port with storage for 26,000 tonnes of vegetable oils, oil derivatives and related chemicals.

Berth 1 and 2 are designated as cruise ship berths.

Berths 16-19 are dedicated to container handling at the Mombasa Container Terminal (MCT), over a total quay length of 760m (10–11.5 m depth). The original MCT on berths no. 16-18 was originally developed to handle 250,000 TEUs per annum, with 7 STS gantry cranes. Because of saturation berth no.19 became operational in April 2013, increasing the handling capacity by 250,000 TEU per annum.

As an intermediate solution to handle the increasing container volumes, Berths 11–14 are being used for container handling as well as for handling general cargo. These berths complement the MCT. These berths are equipped with 3 harbour cranes (100 tonnes capacity). Mobile harbour cranes and ships' own gear are being used.

Just outside the port area, in the Shimanzi industrial area, a state-of-the-art bulk terminal was built in 2006, operated by Grain Bulk Handlers Ltd. (GBHL). The facility handles several dry bulk cargoes: barley, malt, sorghum, soya beans, rice, maize, wheat, and fertilizer. The terminal disposes of 75,000 tonnes of long-term silo storage space. With a modern conveyor system, goods are transported between vessels at berth 3 and silos, with a capacity of 900 tons per hour.

At the Mbaraki Wharf, a new multi-purpose terminal handles bulk cargoes (2 berths for handling cement, coal and fluorspar), petroleum products (handle diesel, edible oil, heavy fuel oil, bitumen and kerosene) and vehicles (BOSS Freight Terminal Ltd). This facility is available to all port users.

There are two main oil-handling terminals at the Port of Mombasa with depths of −10 to −13 m[7]. The Shimanzi Oil Terminal, which can accommodate vessels to 35 thousand DWT and 259 meters long, handles chemical products, and has a stacking yard of 4.8 thousand m². The Kipevu Oil Terminal handles crude oil and refined oil products and can accommodate vessels to 85 thousand DWT and up to 198 meters long. The Cased Oil Jetty between Berth 10 and Shimanzi oil Terminal is currently not in use.

General cargo is usually unloaded using KPA's quayside equipment and ship's gear. Most general cargo is moved from quayside to storage yards in the back or outside of the port.

The total storage floor area in the Main Port covers 114.1 thousand m²: The Main Quay houses eight transit sheds that cover a total of 62.9 thousand square meters. In the back area of the port are three transit sheds covering a total of 37 thousand square meters. Two lighterage area transit sheds cover 13.3 thousand square meters. The Customs Warehouse covers 4.8 thousand square meters.

The stacking area at the Container Terminal in Mombasa covers 137 thousand m². In 2013, berth 19 added an additional 15 acres of stacking yard. The intermodal yard at the back of terminal disposes of 2 RMGs; the container yard of 22 RTGs + mobile cranes. Within 10 km of the port limits, 17 Container Freight Stations[8] offer 39.8 thousand m² of additional stacking area[9].

[7] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[8] African Line Terminal Logistics, Awaned, Bossfreight, BPII Mitchell Cotts, Compact, Consolbase Ltd, Grain Bulk Handling Ltd, Interpel, Kenkont, Kipevu, Makupa, Mitchell Cotts, Mombasa Container Terminal, Mombasa Container Terminal II, Portside, Regional, Focus

[9] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

Figure 3: Container handling and storage around berths 11-16 (KPA)

3.1.2 Recent Developments at the Port of Mombasa

With growing container trade, the operational capacity of the berth 16-18 facility has since long been reached and the KPA has made various efforts to increase container capacity in the port to cope with increasing demand:

a) Containers are also handled and stored at berths 11-14. Berth configuration and berth/yard carrying capacity do however not allow the use of STSs/RTGs. Combined with modest additional stacking area, additional capacity in this area remains limited and the area is mainly used for empty storage.
b) Containers are also handled and stored at berths 1-10. Handling predominantly relates to Ro/Ro (Con/Ro) activities combined with handling by ship's gear and mobile harbour cranes. Since these berths are also used for other trades and cruise vessels and since containers are stored in open spaces between existing warehouses and road/rails, additional capacity in this area remains limited.
c) KPA has designated several private companies as 'container freight station' (CFS). These companies operate off-dock storage areas for custom-bonded full import and/or transit containers. Currently around 10 CFSs are dispersed within city limits around the port area. The CFSs have covered the immediate need for additional container stacking area, but their operations cause a significant increase in truck movements in the port area.
d) KPA has created a storage area behind berth 1 (G-Section), which is designated to abandoned and long-standing containers which are awaiting auctioning by the KRA. This development has allowed the KPA to remove several long-standing containers from the stacking area, freeing up some storage capacity.
e) KPA has acquired and commissioned additional container handling equipment at its container terminal (berths 16-18). The additional STSs and RTGs are expected to allow KPA to fully utilize the available infrastructure capacity at that facility.
f) KPA has started an infrastructure expansion project at its container terminal. A 160 meter berth expansion (berth 19) and a 2 hectare yard expansion are expected to provide some additional dedicated quay-side and yard capacity.

3.1.3 Capacity Constraints at the Port of Mombasa

Despite all these initiatives, the existing facilities are still facing massive congestion and until large capacity expansions have materialized, KPA needs to absorb short to medium term container traffic growth with the current infrastructure. This short/medium term requirement has led to the need to identify and alleviate technical, operational and procedural bottlenecks in and around the port to free-up and create required container capacity. This need for improved operational performance also extends further into a future where KPA may need to compete with private container terminal operators initiating their business in and around the port under PPP agreements (e.g. Kipevu-West).

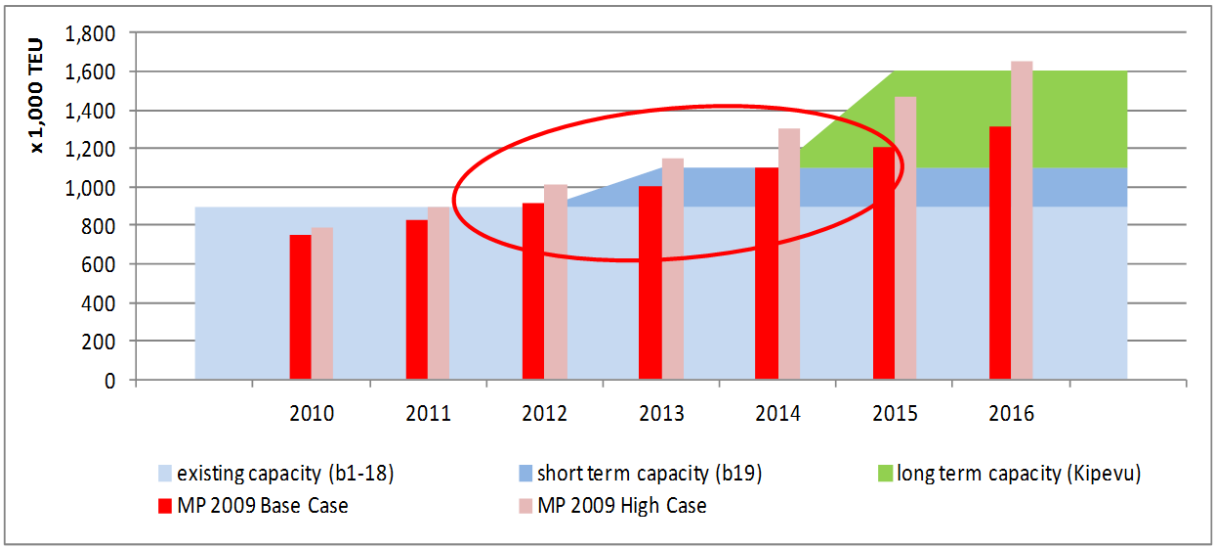


Figure 4: Short and Medium Term Challenges

The pressure on productivity improvement is increasing as the planned capacity expansion will probably materialize later than initially planned. Berth 19 was scheduled to commence operations by mid-2013, while fully in use at the end of 2013. Container operations at the, to-be developed, terminal at Kipevu-West (Mombasa Port Development Project) can probably start at the end of 2015/start of 2016 reaching full operational status within 12 months after opening for berth 20-21. Berth 22 and 23 have scheduled start of operations in 2019 and 2022 respectively. Meanwhile, Kenya's economy keeps on growing, causing a steady increase of container trade. The market is not waiting, so the pressure on KPA's container terminal productivity is increasing.

Construction of berth 20-21 is in progression; as can be seen in the picture below the foundation of berth 20 and berth 21 is already in place. By the end of 2015, a public tender procedure will be finalized with the announcement of the preferred private party to operate the greenfield container terminal.

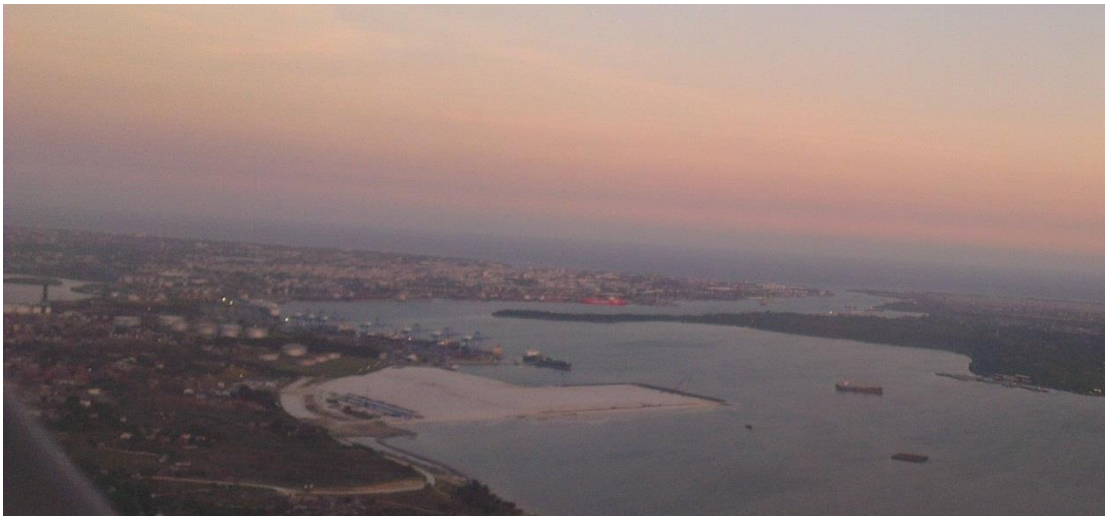


Figure 5: Land reclamation works for the Berth 19 project (Bandari 12/2011)

3.1.4 Accessibility

Marine access to the port goes by a channel of 15 km long and 13.7 m deep[10], recently dredged to 15m. Despite the efforts to improve marine accessibility by increasing the draft in the port, the Port of Mombasa cannot benefit fully from the global trend to increase vessel sizes, The entrance channel to the port of Mombasa contains a corner that limits the length overall (LOA) of the maximum vessels; vessels up to a LOA of 295 meter are allowed to enter the port currently.
The container terminal is directly connected to the rail network. The Northern Corridor connects Mombasa Port to its hinterland, however, the port suffers from the deteriorated rail service levels, as discussed further.
Road access is strongly hampered by congestion[11]. The roads in and around Mombasa seem to have a significant lack of maintenance, especially the connecting road between the port's main gates and the Mombasa-Nairobi highway. There is a daily traffic jam in both directions during rush hour (between 4.00 p.m. and 7.00 p.m.). Apart from the sheer amount of trucks all congregating during this time of the day, a smooth flow of traffic is hampered by the lack of traffic regulation, combined with hold-ups due to holes and bumps in the road. Most of the road damage is actually caused by the heavy trucks from the port, due to the fact that the specifications of these roads were not based on such heavy loads[12].

3.1.5 Procedures

The introduction of an automated terminal operating system tracking container movements and marine operations in 2008 helped to reduce container dwell time. In addition, to alleviate port congestion, some containers are transferred to privately run inland container depots for storage and clearance.

Incoming containers are discharged from the ships at KPA's Kilindi terminal and taken quickly by truck or tractor to the designated CFS. The freight station operator is responsible for transporting the containers form the ship to a secure stacking area within the CFS. Each container can then be cleared for on-carriage to its final destination or, in the case of LCL containers, stripped in to a warehouse for customer collection or groupage. Each CFS is a self-contained facility with government agencies on site including Customs, police, standards authority and sanitary inspectors. Most CFS have 24/7 operations and they must comply with KPA tariffs and regulations. Only 8 CFS handle import boxes. CFS are only used for goods destined for the domestic Kenyan market. All are run by private companies.

Dwell time differs between domestic and transit cargo. While domestic cargo averages just 3.7 days at port, containers then typically wait an additional 11 days at the offsite depot. Transit cargo destined for other EAC countries is not transferred to offsite container depots because Kenyan government procedures mandate that they be cleared at the port site instead, resulting in an average dwell time of 7.5 days for this type of cargo.[13]

	Import	*Export*
Average time at port refers to the time taken from unloading containers to exiting ports; or from entering port to loading on ships [14]	217 hours	313 hours
Variability	73-362 hours[15]	121-842 hours

[10] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[11] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[12] Port Productivity Improvement Plan for the port of Mombasa, 2013
[13] Running on one engine, World Bank, 2010
[14] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

	Import	*Export*
Cost[16]	297 USD Additional shipping line charges generally increase logistics costs by at least 1000 USD per shipment[17]	260 USD

In 2008, the Kenyan government announced that the Port of Mombasa would begin operating 24 hours a day in order to reduce congestion.

3.1.6 Planned interventions

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
New container terminal expansion (Mombasa Port Development Project): 4 new berths (Berth no. 20-23) with a water depth of 11–15 m, construction of new container yards and expansion of existing yards, new loading/unloading facilities, construction of access roads, 2 smaller berths of 12.0m depth (Berth no. 20)	Construction started in 2011; start of operations of phase 1 in 2016 (berth 20 & 21), phase 2 (berth 22) in 2019 and phase 3 (berth 23) in 2022.	1,037.059 USDm, 50% public funds OR 279 USDm JICA-assisted	When fully built, the Mombasa Port Development Project adds a capacity of approximately 1.2 million TEU to the port of Mombasa
Relocation of Kipevu Oil terminal	Planned	-	Improves safety, since it will be in the middle of a very busy area, when berths 20-23 have been completed. .
Conversion of Berths 11–14 with a total yard area of 120,000 m² to a modern container terminal and berth strengthening to accommodate heavier cranes	Project remains confirmed, yet no timeline communicated by the KPA at this moment.		Increase total berth capacity to about 1.2 million TEUs. Additionally yard capacity can be increased as well, yet yard capacity is primarily sensitive to dwell times.
Oil terminal (relocation to replace Kipevu Oil terminal)	Niras Port Consultant of Denmark have carried out a detailed feasibility study, location study, viability, cost and funding options[18]	102.750 USDm (26% public funding) OR 55.5 USDm	Improved accessibility for large vessels (150,000 dwt) & improved safety (tank further away from city)
Implementation of the Port Community Based System			

[15] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[16] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[17] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

[18] Trans East African Networks Match-Making Conference, Kampala, 2013

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Kilindini Waterfront Automated System (KWATOS): integrated ICT system for the improved tracking and clearance of cargo through Kenyan ports to domestic, regional and international destinations		7 million USD	Reducing the number of clearing days from 7 days to just 2 days; reduce overhead costs, bureaucracy and corruption, also in ICDs
Expansion of Dry bulk facilities at Mbaraki Wharf: use this facility for all dirty bulk cargo, such as clinker, coal, iron ore, fertilizers, etc. Components of proposal: (1) new access bridges (2) dust suppression (3) berth deepening. (4) berth extension		1.333 USDm	The impact of the new access bridges is the efficiency of a single loading and reduced dust caused during the second loading at the back of the port. Avoidance of double handling will also reduce the cost of the products. Cost savings are estimated at US$0.11 per tonne. Wharf deepening will allow larger ships which are more efficient and thereby reduce the cost of imports.
2 new discharge units for bulk grains		10.500 USDm (25% public funds)	
Berths 1-10: expansion of general cargo facilities	Concept		
Capacity expansion in the Dongo Kundu area (on the other side of Port Reitz)	Vision 2030 project – prefeasibility stage		Masterplan of the 3000 acres owned by KPA – possibly including (gas fired) power plant

3.1.7 Critical barriers to trade

- Mombasa port operations are unanimously agreed by the private firms and public agencies in Uganda and Rwanda to be at the top of constraining measures for *total* goods trade along the Northern Corridor. This is reflected in the overly large share in total transport time.
- Complex clearance procedures, and an overreliance on physical container inspections (rather than risk-based inspections) caused clearance bottlenecks at the port and increased average dwell time (the number of days that cargo spends at the port site).[19]
- Congestion in container terminal due to limited back-up space in port (storage yard width not compatible with the volume of container cargo handled and the long dwell times)[20]
- The existing container terminal is almost saturated and the berth occupancy rate is approaching 90%, resulting in long waiting times for container vessels.
- Equipment breakdown & shortage

[19] World Bank, Running on one engine, June 2010

[20] Regionalizing infrastructure for deepening market integration, World Bank, 2012

- Lack of modern terminal operating system; KRA and KPA introduced computerised systems in their operations, but incomplete integration between the two systems and with other clearance agencies[21]
- Monopoly position of GBHL grain bulk terminal increases prices[22]; no other companies are licenced to operate a similar system

[21] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

[22] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

3.2 RAIL

3.2.1 Map of the railways in East Africa, Network operated by RVR

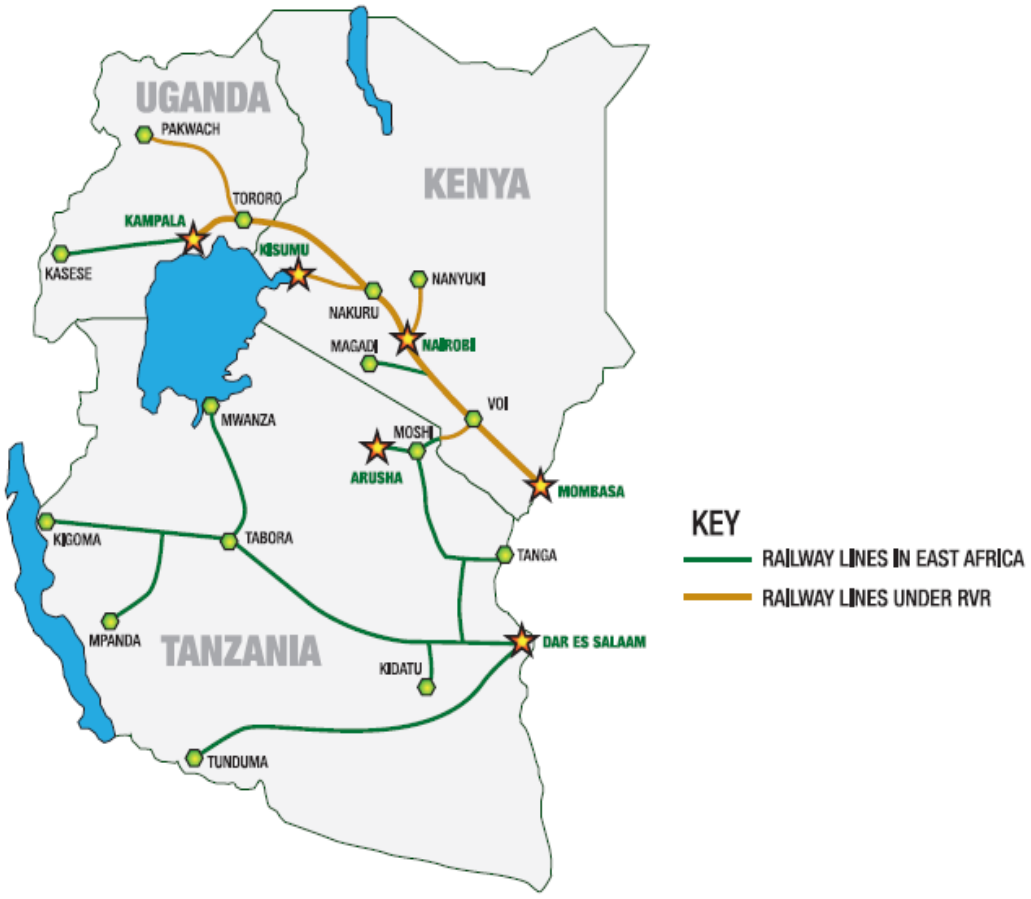


Figure 6: Railway network in East Africa (Source: RVR)

3.2.2 Organization of the Railways on the Northern Corridor

"Rift Valley Railways (RVR) took over the operations of the Kenya and Uganda Railways on 1st November, 2006. RVR was established on October 14, 2005, when the Government of Kenya and the Government of Uganda jointly tendered through a bidding process, a 25 year concession for the rehabilitation, operation and maintenance of the railways then run by Kenya Railways Corporation (KRC) and Uganda Railways Corporation (URC) respectively."

"The Concession Agreement sealed between Kenya and Uganda governments commits the Concessionaire (RVR) to provide freight service for a period of 25 years, and passenger services, in Kenya only, for five years. Under this Agreement, both the Kenya and Uganda governments still own the railway infrastructure and facilities while RVR operates trains and maintains the infrastructure."[23]

The concession for passenger haulage in Kenya elapsed in June 2012. It has been extended for one year until the end of 2013.

The concession agreement includes objectives in terms of investment to be made and volumes of cargo to be transported.

[23] Source: RVR website

3.2.3 Infrastructure

The existing railway infrastructure in the Northern Corridor is all narrow gauge (1000 mm). The main railway line connects the maritime port of Mombasa with Kampala, through Nairobi, Malaba and Jinja over a distance of 1334 km.

The main line can be split up in the following segments:

- Mombasa - Nairobi: in fairly good state, worn out curves have been replaced in 2012
- (Mombasa -) Nairobi – Malaba: "From Mombasa to Malaba, the tracks are in fair to good condition, although spot rehabilitation is necessary". [24]
- Malaba – Kampala: rated as "poor" to "fair,"[25] the replacement of nine major culverts between Tororo and Jinja sections was done in 2012.

"Due to lack of maintenance, the condition of the railway infrastructure shows serious deterioration as well as the cracking of sleepers in several points. In some parts, the fastenings are not adequately done or often stolen. Generally, the structure is suffering from the lack of ballasts. The ballasts are supposed to have sufficient amount of crushed rocks but in several parts they are only composed of soil with crushed rocks worn out. One fourth of the Kampala-Malaba line is under temporary speed restrictions of 10-20km/h because of the poor condition of rail structure. Sample gauge measuring by the study team detected more than 20mm difference from the design of 1,000mm, caused by the accumulated damage on sleepers." [26]

In 2013, RVR has completed the building of 73 kilometres of new railway track on the most badly rundown sections between Mombasa and Nairobi to improve reliability and speed delivery of cargo by rail. The investment cost reached USD 20 million, equivalent to kshs 1.7 billion.
RVR indicated that: "Completion of this railway modernisation project has reduced cargo delivery time between Mombasa and Nairobi by six hours[27] through rebuilding the most badly rundown sections that were responsible for 60 per cent of blockage time on the railway line."
"Construction of the new railway line included the laying of 10,000 sleepers to retain track geometry and improve safety. The upgrade is part of a larger railway track modernization programme that will see the rebuilding of over 360 km of the most affected sections of the railroad in Kenya and Uganda."
Mr Ondego, RVR Executive vice chairman, said "RVR is on course with significant investments to introduce innovations in operations and modernize infrastructure both in Kenya and Uganda in order to ensure a dependable and well-functioning railway that can spur growth and regional economic integration throughout East Africa." He said "improved reliability has been one of the immediate benefits and the number of incidents declined a full 20 per cent last month."

From 2013 on, RVR will use the available rails and weld rails together so as to constitute long welded rails (300m).

From Nairobi to Kampala, RVR will carry out works on 122 km each year, mainly on curves, on straights in forest areas where ground is affected and on culverts: USD 5.2 million of works have been completed in Uganda.

RVR also worked on the Tororo-Pakwach line so as to enable its re-opening scheduled in July 2013, with an investment worth USD 2 million. The line effectively re-opened with a first commercial train on

[24] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[25] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[26] Data Collection Survey on East African Railway Sector, JICA, 2010

[27] Such investment has enabled RVR to increase the operational speed and to reduce the speed restrictions. Travel time from Mombasa to Nairobi has been reduced from 28 hours to 22 hours.

the reopened line which arrived in Gulu on September 14, 2013, carrying steel from Mombasa. This was transferred to road for delivery by Spedag Interfreight to Juba in South Sudan.

A tamping machine will be available in November 2013, which will improve the maintenance of the line.

Besides the main line, several smaller side branches exist, of which the following are the most important ones:

- Nairobi to Magadi Soda: improvement of track of 160 km and reconstruction of culverts and viaducts needed[28]
- Nakuru to the inland port of Kisumu: limited service
- Kampala to the inland port of Port Bell
- Voi - Moshi
- Tororo to Pakwach: after being closed down in 1998, the line reopened in 2013.

However, in 2012 nearly half of these side branches (499 km[29]) remain unused, mostly due to commercial and operating issues, especially in Uganda:

- Kampala to Kasese (333 km),
- Branches to Nanyuki, Kitale, Nyahuru and Taveta.

In these closed sections, stealing of rail and sleepers is a serious problem. This is because of the poor asset management; citizens are free to enter within the right of way and in some parts they are literally living besides rail tracks[30].

In Kenya, traffic management is limited to a few level crossings with a device that can temporarily stop the road traffic. Other places in Kenya and in Uganda, whistle from the train is the only signal for cars and passengers to know that a train is approaching. Radio system and hand-written memo between drivers and stations is the only means of communication.
Moreover, at several places, passengers are walking on the tracks, resulting in dangerous conditions. [31]

3.2.4 Services

As already mentioned, a concession agreement has been signed between the Kenyan Government/KRC and the Ugandan Government/URC for operation services of RVR. Core railway assets were conceded to the concessionaire, RVR, and freight and passenger services are to be operated by RVR. KRC and URC are left to monitor the performance by RVR, manage non-core assets and regulate the railway operation on behalf of the two governments.

Freight services were conceded for a period of 25 years. After having faced some serious challenges in the beginning of their concession (lack of capital, shareholder issues, post-election violence, and underestimation of the poor conditions of the existing infrastructure), RVR failed to meet the targets set by the agreement. Recently RVR has gone through a period of restructuring, with new shareholders, a new management team[32].

[28] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[29] RVR, 2012

[30] Railway Infrastructure assessment, JICA 2012

[31] Railway Infrastructure assessment, JICA 2012

[32] RVR, 2012

The requirements defined in the concession agreement concerning the transport of cargo are the following:

- In Kenya: 1.7365 billion net tons-km by the end of 2013
- In Uganda: 249.9 million net tons-km by the end of 2013

According to RVR, these volumes will not be reached in 2013 (RVR expects 845 million net tons-km in Kenya and 101 million net tons-km in Uganda) but they can be transferred to next year (same volume + variance) because of the delays that occurred in the investments. RVR considers that the objectives are achievable in 2014. Heavier trains will be operated to Kampala thanks to the culverts upgrades.

RVR main customers in the freight business are categorized as Logistics Service Providers (42%), Cargo Owners (39% of total volumes moved) and Shipping Companies (19%) of total volumes moved.[33]

Magadi Railways (MR) offer rail transport operations on the line between Konza and Magadi (146 km) on behalf of the Magadi Soda Company Ltd.

3.2.5 Rolling stock

To perform its freight services, RVR disposes of 71 freight locomotives (48 in Kenya) and 2250 freight wagons[34].

However, rolling stocks are generally too old to perform adequately. Most locomotives are more than thirty years old and wagons are on average fifty-five years old. Difficulties in procuring spare parts are another challenge and some locomotives are forced to operate without having overhauls.[35]

Figure 7 Line locomotive used by RVR in Kenya

Figure 8 Rehabilitated and former KRC wagons used by RVR in Kenya

In June 2013, RVR acknowledged during an interview that they could operate a maximum of 4 to 5 trains due to the lack of availability of locomotives.

[33] RVR, 2013

[34] RVR, 2012

[35] Railway Infrastructure assessment, JICA 2012

Current investments in rolling stock rehabilitation are planned by RVR as follows:

- Locomotives overhaul
  - In Kenya:
    - a USD 30.9 million investment has been approved by KRC
    - 2 locomotives have been rehabilitated and RVR is currently working on 6 other locomotives.
  - In Uganda
    - 4 locomotives should be rehabilitated/ overhauled from late-2013 in the Kampala workshop
- Wagons overhaul: USD 6 million investment:
  - In Uganda, some rolling stock has been approved by the regulator and RVR is in the process of receiving the material.

RVR has three workshops, located in Mombasa, Nairobi and Kampala.

RVR has awarded a contract worth US$410,000 to ROKO Construction Ltd to refurbish the main railway workshop at Nalukulongo near Kampala. The works have been performed in 2012 and the workshop is currently operational. The Kampala workshop has been originally built for locomotives and not for wagons. It is now used for both locomotives and wagons.

Rehabilitation of wagons is currently organized as follows:

- Rehabilitation is performed by a sub-contractor
- On average 15 wagons are rehabilitated per month
- Supervision is done by RVR.

Rehabilitation of locomotives is currently not performed as RVR is expecting the necessary spare parts.

Figure 9 Rehabilitated wagons in RVR workshop in Kampala

Investment in RVR signalling system (ATW-Automatic Track Warranty) will amount to USD 15 million. It will be implemented in Kenya and Uganda by November 2013. It will further reduce travel time from 22 hours to 18 hours.

RVR has provided the following details: "Rift Valley Railways (RVR), the operator of the Kenya-Uganda railway, has launched a sh 800m technology upgrade that includes global positioning system (GPS) -based software that centrally controls the movement of trains and cargo along the railway track. The Automated Train Warrant (ATW) software allows online visualization from an operations control centre in Nairobi of the precise location of trains along the railway. It will replace manual management of crossovers at railway stations with satellite enabled self-switching movement of trains. "*The introduction of satellite navigation technology to this core component of our operations means we will eliminate a lot of waiting time at stations by giving priority track access to trains carrying cargo and also allow us to handle larger fleets*," said Darlan De David, RVR group CEO. Communication with the trains will be through on-board computers installed in all locomotives which have remote speed control features and a mechanism to feedback data on the condition of engines and the track."

Commenting on the new technology, Hernani Sozzi Jnr., a veteran rail and road management software developer with large Brazilian rail operator America Latina Logistica, said "This is an integrated logistics and operations solution used in modern railway management system that gives real time information on multiple dimensions of the railway line and rolling stock". Hernani who was in Kenya to train RVR software developers and traffic controllers on the new system said this integrated technology platform is currently being used to manage railway operations in Brazil, Argentina and South Africa. He said Japan uses the same technology to manage operations and billings for mass computer rail. A key component of the technology is the Translogic integrated logistics management platform which provides a detailed manifest of the position and contents of all cargo-carrying wagons. "*This platform enables us to tell customers exactly where their cargo is along the 2,352km railway track we manage*", De David noted. "*This innovation gives RVR the ability to effectively manage asset quality, reliably schedule maintenance and help ensure consistently high standards of rail transportation to smooth trade in East Africa*," De David said."

3.2.6 Procedures

There is only one border crossing along the Northern Corridor for goods that are being transported by rail, in Malaba. A USAID-funded OSBP is operational and has improved transit time significantly, to 2 hours for imports and 1 hour for exports[36].

3.2.7 Planned interventions

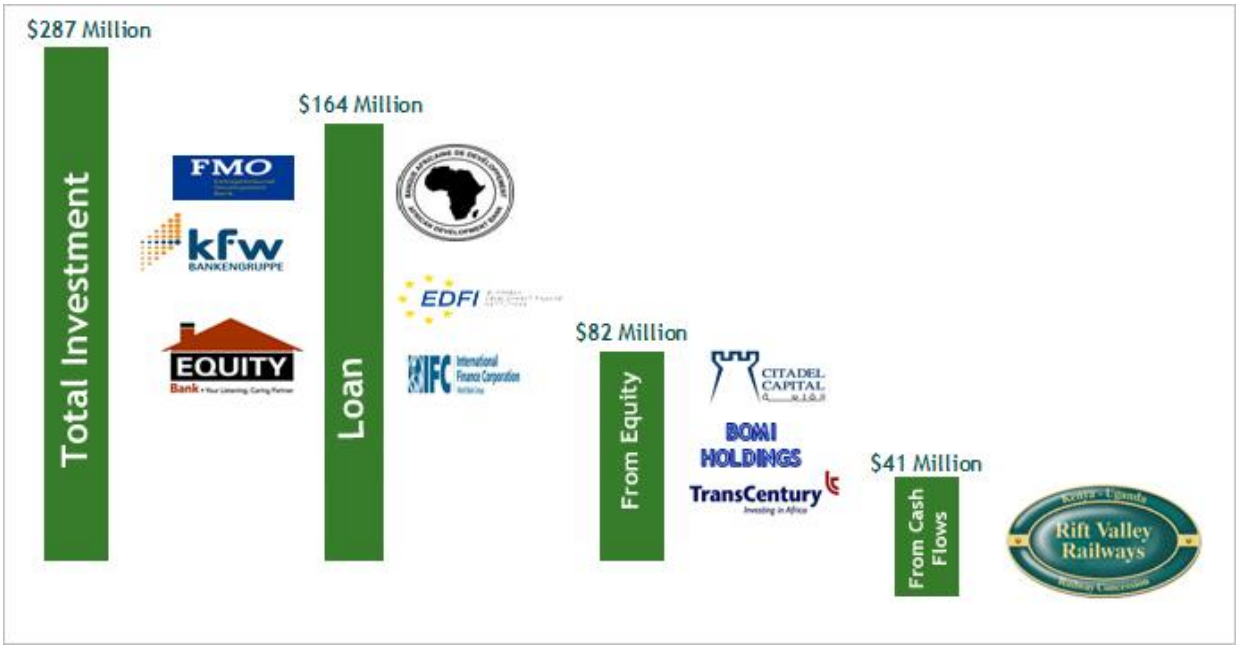
From RVR source:

"RVR received capital financing in August, 2011 from six Development Finance Institutions (DFIs) and a local bank to deliver a targeted USD287 million capital expenditure programme to finance the five-year turn-around business programme.

Out of the total capital financing package of USD 287 million, USD 164 million comes in the form of a series of loans: USD40 million from the African Development Bank (AfDB); USD32 million from Germany's KfW Bankengruppe; USD22 million from the International Finance Corporation (IFC); USD20 million from FMO (the Dutch development bank); USD20 million from the ICF Debt Pool and USD10 million from the Belgian Investment Company for Developing Countries (BIO), and USD20 million from Equity Bank of Kenya.

Over the next five years, RVR is projecting to reinvest USD 41 million of its internally generated revenues."

[36] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011



Source: RVR

From RVR source:

The funding RVR has received from the Development Finance Institutions (DFIs) will go towards the implementation of a fully funded five-year turnaround program. Currently, RVR is in process of rehabilitating the main railway line from Mombasa to Kampala.

RVR will also invest towards making the existing fleet more reliable by refurbishing of 400 wagons and 9 locos for the purpose of enhancing efficiency within the railway operations. In addition to this, RVR will also implement a locomotives fleet reliability program, procuring the locomotives and wagon tools for the workshop, purchase of parts and equipment and investing in fuel points and maintenance.

Once the planned rehabilitation exercise is completed, it will be possible to raise line speeds on the re-laid sections from the current restriction of between 25km/h and 30km/h to 70km/h. This will significantly improve the reliability and efficiency of the railway operations and it will enable RVR to operate bigger capacity trains, thereby, improving the companies loading capacity and reducing travel hours for trains.

From sources external to RVR:

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Tororo-Pakwach line	Re-opened by RVR in 2013 for light traffic. URC considers three scenarios for rehabilitation: • Minimum rehabilitation • Increase capacity, axle load, workshop upgrading • Standard gauge	Minimum rehabilitation: USD 150m Increase capacity, axle load, workshop upgrading: USD 400m Standard gauge: USD 1bn	Rail accessibility of the oil wells in the northern region of Lake Albetine

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Mombasa – Malaba new railway line standard gauge	Prefeasibility in progress; feasibility commenced: bilateral agreement signed by governments of Kenya and Uganda; conceptual design standards for the railway agreed	4,173 USDm[37]	Reduced transport cost with 15-20%; modal shift
Malaba – Kampala new railway line standard gauge	Concept	885 USDm[38]	Upgrade capacity of existing railway
Kampala – Kasese – Kigali new railway line standard gauge	Kampala – Kasese: prefeasibility in progress, feasibility commenced; Kasese – Kigali: Prefeasibility complete	Kampala – Kasese: 1022 USDm; Kasese – Kigali: 1782 USDm[39]	Railway accessibility of western part of Uganda and Rwanda

3.2.8 Critical barriers to trade

- Poor track condition, and low locomotive and wagon availability[40] cause capacity constraints. The performance of the railway services is considered as insufficiently competitive with road transport in order to increase modal share
- Limited number of wagons per train due to the steep sections of the line.

3.3 ICDs/DRY PORTS

KPA owns and operates Inland Container Depots (ICDs) or "dry ports" at Nairobi, Kisumu and Eldoret, all of which are connected to the port of Mombasa by a special rail service (railtainer) for the transportation of containerised imports and exports.[41]

In 2013, Eldoret and Kisumu ICDs are not operational.

The major objectives of the ICDs are to bring port services closer to shippers in the hinterland through specialized rail-tainer service as well as decongesting the port of Mombasa. ICDs are connected to Mombasa by rail services operated by RVR.

All facilities have the capacity to handle:

- Both containerized and loose cargo
- Stripping and stuffing of containers
- Consolidation, storage of full containers and loose export cargo
- Storage of empty containers
- Hire of labour and equipment
- Weighing of containers
- Special services e.g. cleaning of containers

[37] TICP, AURECON, 2012

[38] TICP, AURECON, 2012

[39] TICP, AURECON, 2012

[40] Regionalizing infrastructure for deepening market integration, World Bank, 2012

[41] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

- Cargo documentation finalized at ICDs
- Leasing of slots to shipping lines on request

3.3.1 Embakasi ICD (Nairobi)

The Embakasi Inland Container Depot is located in the Industrial Area opposite General Motors, off Mombasa road.

The facility occupies 29 hectares of land and has a 99 thousand m² stacking area designed to accommodate a throughput of over 180,000 Twenty-foot Equivalent Units (TEUs) per annum[42].

There are two railway sidings serving the facility which enables the off-loading of two rail-tainers simultaneously. Railway is the major means of transport linking the ICD with the port of Mombasa.

Figure 10: Embakasi Inland Container Depot

[42] http://www.worldportsource.com/ports/commerce/KEN_Port_of_Mombasa_1365.php

Figure 11: Embakasi Inland Container Depot : container train on a rail siding

Figure 12: Embakasi Inland Container Depot : scanning of containers

The Nairobi ICD is "fairly active" performing at less than 30%. This low performance is largely influenced by the low services offered by railway transport which is currently at 5%. Average time in the ICD is 396 hours, of which 192 are used for customs and 200 for ICD handling[43].

A visit in June 2013 confirmed that the ICD is operating well below its capacity.

Table 3-3: Nairobi Inland Container Depot traffic: 2008 - 2012[44]

	2008	2009	2010	2011	2012
IMPORTS FULL	16,642	12,528	14,185	14,494	15,319
EXPORTS FULL	6,881	4,930	5,157	4,607	4,848
EMPTY	16,387	14,794	18,659	21,830	19,737
TOTAL	39,910	32,252	38,001	40,931	39,904

3.3.2 Kisumu ICD

The Kisumu Inland Container Depot is located in Kibos in Western Kenya on the shores of Lake Victoria along the Kibos road in Kondele. The facility is linked to the Port of Mombasa by railtainer service.

It occupies 17.5 hectares of land with a 25 thousand m² stacking area designed to accommodate a throughput of 15,000 TEUs per annum[45].

Its operations are almost nil since 2010.

The Kenya Ports Authority (KPA) is mandated to undertake the management of the port but plans are still underway. To facilitate this, a Transaction Advisor on the operations and services of the port shall be instilled. With respect to this, the Public Private Partnership (PPU) Unit recently published an advertisement on the local dailies.

[43] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[44] Annual Review and Bulleting of Statistics, Kenya Ports Authority, 2012

[45] http://www.worldportsource.com/ports/commerce/KEN_Port_of_Mombasa_1365.php

Table 3-4: Kisumu Inland Container Depot Traffic: 2008 - 2012[46]

	2008	2009	2010	2011	2012
IMPORTS FULL	1,002	1,520	131	66	102
EXPORTS FULL	544	308	2	-	0
EMPTY	187	181	95	74	55
TOTAL	**1,733**	**2,009**	**228**	**140**	**157**

3.3.3 Eldoret ICD

The Eldoret Inland Container Depot is located in Western Kenya along the Northern Corridor. The facility is linked to the Port of Mombasa by railtainer service.

There is a 18 thousand m² stacking area designed to accommodate a throughput of 25,000 TEUs per annum[47], however it is currently not operational.

3.3.4 Planned interventions

Action	*status: project approved, estimated cost design phase, construction phase, …*	*qualitative assessment on the impact on system performance of the corridor*
Mukono ICD (near Kampala)	Construction contract awarded	

3.3.5 Critical barriers to trade

- (Nearly) non operational ICDs (Kisumu, Eldoret)
- Lack of railway services

3.4 INLAND PORTS

The main ports for interconnectivity between the countries around Lake Victoria are: Kisumu, Mwanza (reviewed as part of the Central Corridor) and Port Bell (Kampala). Jinja port is also examined, since it is also connected to the railway line.

[46] Annual Review and Bulleting of Statistics, Kenya Ports Authority, 2012

[47] http://www.worldportsource.com/ports/commerce/KEN_Port_of_Mombasa_1365.php

Figure 13: Ports on Lake Victoria

3.4.1 Port Bell

Topic	
Quay length	100m x 50m
Yard area	
Land connectivity	The port is connected by rail to the Northern corridor. A marshalling yard with 4 tracks is located along the access to the port.
Equipment	• One operating mobile crane • Load-on Load-off (LoLo) facilities for cargo handling • Roll-on Roll-off (RoRo) rail wagon loading dock
Superstructures	• Warehouse (75 x 20m)
State of infrastructure	Rail and road infrastructures in fairly good state.
IT and communication system	
Other comments / expert observations	

Figure 14: Aerial view of Port Bell

Figure 15: Port Bell : Wagons on the access track to the port

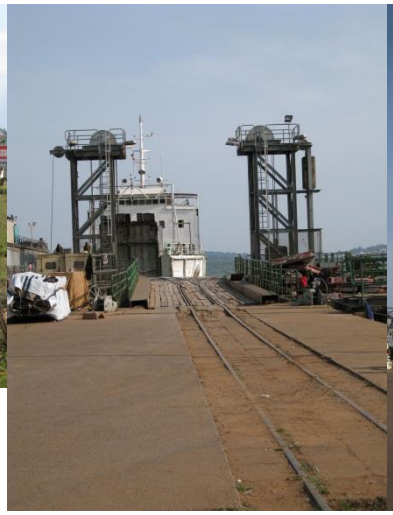


Figure 16: Port Bell : Link span

Figure 17: Port Bell : Mobile crane

3.4.2 Jinja

Topic	
Quay length	50m x 15m
Yard area	
Port area TPA	
Lake connectivity	Draft of 8m, can handle boats up to 500 GRT

Topic	
Land connectivity	The port is connected by rail to the Northern corridor, but the rail link slope between the port of Jinja and the local ICD 3 km away is 3 percent and poorly maintained[48]. The dirt road running down to the port of Jinja is steeply graded and heavily crevassed[49].
Equipment	
Superstructures	• Dolphin mooring system
State of infrastructure	• It is in very poor condition with most of the planking and fendering systems decayed beyond use[50].
IT and communication system	
Other comments / expert observations	• mainly used as a relief port for Port Bell when it was congested.

[48] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[49] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[50] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

Figure 18: Aerial view of Jinja Port

Figure 19: Jinja: pier

3.4.3 Kisumu

Figure 20: Aerial view of Kisumu Port

Topic	
Quay length	260m Rail-wagon terminal
Yard area	20ha
Port area KPA	KPA has not yet taken possession of port area
Lake connectivity	The major problem faced at the port is the presence of hyacinth which hinders the movement of vessels in and out of the port. 

Topic	
Land connectivity	The rail-wagon terminal in the port of Kisumu is connected by a side branch to the Northern railway corridor, it is also associated with the ICD that is approximately three kilometres from the port.
Equipment	Kisumu has the most fully equipped machine, carpentry, and fabrication shops of the ports of lake Victoria[51].
Superstructures	• warehouse of 80x16m • paved open storage are of approximately 3,000m².
State of infrastructure	• Poor
IT and communication system	
Other comments / expert observations	• Low utilisation • Kenya Ports Authority (KPA) was mandated to undertake the management of the port but the official handing over is still underway. • To that end, the National Treasury through the Department of Infrastructure, Finance and Public private partnership, has requested for an expression of interest for "Consultancy for the Provision of Transaction Advisory Services for the Kisumu Port Project" in the local dailies on September 3rd, 2013.

3.4.4 Planned interventions

Action	*status: project approved, design phase, construction phase, …*	*estimated cost (million USD)*	*qualitative assessment on the impact on system performance of the corridor*
Port Bell: expansion	Concept by Uganda Ministry of Transport	10	Increase trade on lake, link NC and CC
Jinja: expansion	Concept by Uganda Ministry of Transport	10	Increase trade on lake, link NC and CC
Kisumu Port: modernisation[52] (possibility could be the provision of RoRo equipment at the ports like barges, MAFI trailers and importation of tugs[53])	Concept; looking for private parties to operate port		Private investment to make port operational again for trade on lake, and link NC and CC
Waste management plant in Kisumu	License awarded	Ksh. 100 million	Tackle the navigational problem of water hyacinth
New Kampala Port Bukasa: conventional container and multipurpose harbour + railway & road connection to Namanve Industrial Park	Looking for private investor in PPP Build & Operate[54]	322[55]/ 100[56]	Increase capacity with 8 million tonnes per year

[51] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[52] Trans East African Networks Match-Making Conference, Kampala, 2013

[53] TICP, AURECON, 2012

[54] Trans East African Networks Match-Making Conference, Kampala, 2013

[55] Trans East African Networks Match-Making Conference, Kampala, 2013

[56] Draft Report Project Prioritisation, Uganda Ministry of Transport, November 2012

3.4.5 Critical barriers to trade

- Ports are highly dependent on the railroad for much of their business. But the railroad has not been able to provide adequate service to the ports or their trading partners across the lake[57]
- The ports at Lake Victoria only have the outdated rail-wagon ferry system to transport the goods around the lake. This transport system dates from the pre-containerisation era and it has not been modernised. An improved lake transport system is required to unlock the transport potential of the lake. The infrastructure requirements depend on the transport system to be implemented (see also section 3.5 Transport at Lake Victoria)
- None of the ports has container handling equipment at all and consequently do not handle containers unless they are on a rail wagon[58]. In Kisumu, containers that arrive by wagon-ferry are moved to the KPA's inland container depot approximately 3 km away[59].
- In Kisumu also a problem with water hyacinth is causing ships cancelling deliveries to the port.
- All ports have serious infrastructure problems: the original piers were built between 1920 and 1930. Consequently, there are serious questions regarding their weight bearing capacity and suitability for supporting heavier cranes[60]. Port infrastructure is outdated due to lack of infrastructure investments by RVR and its predecessors URC and KRC in the last two decades[61.]
- If traffic increases and reaches its past peak levels,
  - Port Bell (would suffer) from a lack of operating space; the creation of a yard area would greatly improve operations[62].
  - Port Bell (would have) an urgent need for two to three 5 ton forklifts[63].
- The port of Jinja is poorly accessible on the landside, with heavily deteriorated road and rail, resulting in a dangerous situation for trucks and trains[64].
- Long time in-port due to poor performance at the ship/shore interface and rigid administrative procedures (prohibiting night time sailing etc.). [65]

[57] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[58] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[59] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[60] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[61] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[62] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[63] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[64] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[65] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

3.5 LAKE TRANSPORT ON LAKE VICTORIA

Figure 21: Ports on Lake Victoria

3.5.1 Services

Nearly all of Lake Victoria's shipping services are divided into cargo specific and combined passenger/cargo services (including car ferry services), whereby space is offered for passengers and goods in return for freight based on a tariff of rates. The most important connections are between Mwanza, Port Bell, previously also Kisumu.

Since most of the main Lake Victoria ports were formerly owned and operated by the railways, the primary means of transporting transit cargo was via an integrated rail/ferry system, provided by the Tanzania Marine Service Company Limited (MSCL) and the Uganda and Kenya Railway Corporations (services taken over by RVR). Five of these vessels were built between 1964 and 1979, they are capable of carrying 19 rail wagons each (equivalent to 38 TEUs)[66].

Other sources mention that these ships have four tracks with a total capacity for 22 railway wagons.

[66] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

3.5.1.1 MSCL

A MV Umoja

Umoja and her sister ship MV Uhuru were built in 1965 by Yarrow Shipbuilders in Scotstoun, Glasgow, Scotland, and entered service in 1966[67].

MV Umoja is currently being rehabilitated in Mwanza South floating dock.

Figure 22 MV Umoja in Mwanza South floating dock (September 2013)

3.5.1.2 RVR

A MV Kaawa

The ship was repaired and put again in operation in 2012 after a collision with MV Kabalega in 2005.

Rift Valley Railways (RVR) announced in September 2012 that it "has resumed its maritime services on Lake Victoria after taking over the MV Kaawa which was re-commissioned by Uganda's Minister of Works and transport Hon Abraham Byandala at Port Bell in Kampala on Friday the 31st of August 2012."

"The vessel had been withdrawn from service in 2005 after being severely damaged in a collision with her sister vessel the MV Kabalega resulting in the sinking of the Kabalega. Following the mishap, the Uganda Government ordered the grounding of all wagon Ferries operating in Uganda pending their full rehabilitation and compliance with maritime regulations.

Speaking during the handover ceremony held on board the recently rehabilitated vessel; the Group Chief Executive of RVR Mr. Brown Ondego said that the handover was a historic day for RVR and its concession partners. "*MV Kaawa will play a strategic role in our operations as it will allow us to carry more volumes and give us the possibility of servicing new and existing clients using the southern corridor through Tanzania*".

[67] Wikipedia

Uganda's Minister of Works and Transport, Hon Abraham Byandala, valued the completed works at about USD 3.5 Million. "*I would like to register my gratitude to the World Bank for financing the East Africa Trade and facilitation project under which this contract falls*"

The MV Kaawa has the capacity to carry up to 1,232 MT or 22 fully loaded wagons at one go, this is in contrast to most vessels currently on the Lake whose capacity is only about 400 MT."

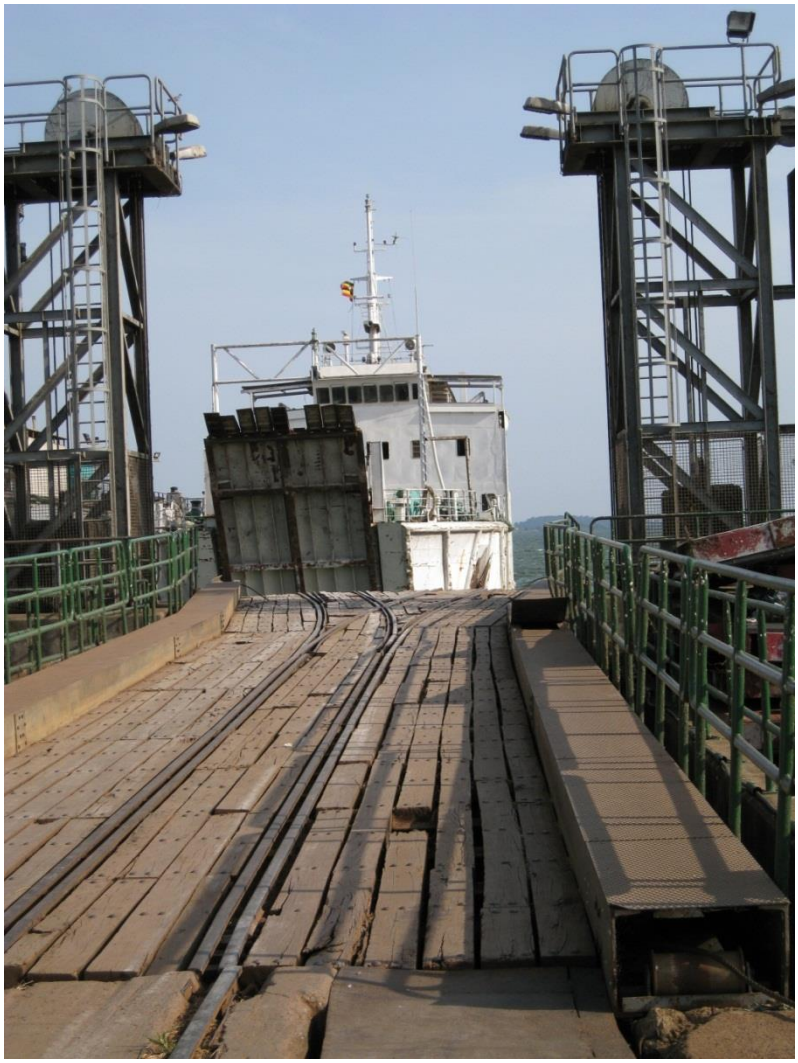


Figure 23 MV Kaawa in Port Bell (June 2013)

RVR also announced in September 2012 that it will be launching another vessel, the MV Uhuru. "MV Uhuru, a Kenyan registered vessel, will complement and support MV Kaawa on the proposed triangular service between Port Bell in Uganda, Mwanza in Tanzania and Kisumu in Kenya."

"*The two vessels will give RVR the capacity to transport a minimum of 200.000 tons a year. This is in line with our strategy to offer door-to-door intermodal transport solutions and help us achieve our business objectives of being able to transport at least 4.5 million tons of freight by rail per annum within the next five years*" Said Mr. Ondego

Mr. Ondego also noted that the impact of the resumption of Maritime services would be felt well beyond the borders of Uganda and Kenya as the lake supports a vibrant trade in goods manufactured within the five East African countries and beyond including; edible oil, timber and multiple FMCG products. *"The reintroduction of Kaawa will serve to speed up the business velocity of this trade and provide a vital service to its market of over 60 million people*", added Mr. Ondego.

B MV Uhuru

RVR confirmed in an interview in June 2013 that the ship is being rehabilitated as per the concession agreement. At that time, the ship needed to be certified by a recognised certification body.

C MV Pamba

MV Pamba is currently berthed in Port Bell. It is suspended from service since 2005, waiting for rehabilitation works.

Figure 24 MV Pamba (June 2013)

Figure 25 MV Pamba (June 2013)

D MV Kabalega

The ship sank in May 2005 after a collision with her sister vessel the MV Kaawa.

3.5.2 Safety

While all registered ships on Lake Victoria are provided with radio communication facilities (allowing them to report their position to owners and in some cases, the relevant authorities), none of the lake ports are provided with any formally structured maritime assistance services of any kind. This implies that no general weather synopsis, storm or other navigational warnings are given to ships departing any of the lake ports.

Neither is the lake provided with landfall lights, beacons, buoys, leading lines or other facilities that delineate headlands, ship routes, known dangers (including wrecks) or the fairways and approaches to ports.

In the Lake Victoria Navigation Safety Project (undertaken through the Secretariat of the East African Community with support from the International Hydrographic Organisation), in 2009, surveys have only been made at the ports of Mwanza, Kisumu and Port Bell, though navigational charts are not publicly available.

3.5.3 Planned interventions

Action	*status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
New vessel to replace MV Kabalega	Concept by Uganda Ministry of Transport	60USDm[68]	Increase trade on lake, link between Northern Corridor & Central Corridor
Refurbishment of MV Pamba	Concept by Uganda Ministry of Transport	10 USDm [69]	Increase trade on lake, link between Northern Corridor & Central Corridor
Convert rail-wagon ferry services into load-on load-off container carriers[70]			Increasing availability of rolling stock
Provide RoRo Services by mobilising private sector[7172]	Concept; related to developments in the ports	/	Increase capacity of railwagon ferries
Hydrography, charting and aids to navigation[73]		0.45 USDm	Undertake and/or complete hydrographic surveys and install lake-wise and port navigation aids, especially leading lights designed guide ships along safe passages when entering and leaving a port and jetty-end lights marking the limits of breakwaters, piers etc.
Search & Rescue centre for entire Victoria Lake	Plots near Mwanza North port have been acquired	10.2 USDm [74]	Effective maritime search and rescue organisation & improved maritime safety

3.5.4 Critical barriers to trade:

- Because of the poor performance of railways, Mwanza South Port, Port Bell and Kisumu have lost their important role in international trade with the neighbouring countries.
- But even with a good rail service, the vessel carrying capacity for general or containerized cargo has deteriorated to the point where it has become not viable as an economically competitive transport mode[75]; as almost all the ships owned by MSCL are of the outdated cargo-passenger type. Therefore, MSCL has been losing market share to the private sector

[68] Draft Report Project Prioritisation, Uganda Ministry of Transport, November 2012

[69] Draft Report Project Prioritisation, Uganda Ministry of Transport, November 2012

[70] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[71] TICP, AURECON, 2012

[72] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012: Since traffic is low and needs to develop, it is proposed that initially a relatively cheaper tug and barge based roll on roll off (RoRo) system should be developed on both lakes to provide necessary capacity until cargo traffic builds up to justify more expensive lift on lift off system.

[73] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[74] LVBC Secretariat, 2012

[75] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

- There is no credible safety environment on the Lake due to lack of harmonisation of certification and licensing of vessels and crew (leading to a large variety of vessels to different standards), no credible and effective search and rescue and no up to date navigational aids to guide safe sailing of vessels[76]
- Lack of standards of port security, safety and environmental practice. Port regulations should aim to meet the practical objectives of good port practice and be modelled in particular on performance based regulation with focus on outcomes which are a key to encouraging innovation and efficiency[77]

3.6 ROAD

3.6.1 Infrastructure

Nearly the entire Northern Corridor stretching 2080 km from Mombasa to Uganda, Rwanda, and Burundi is paved and composed of single-lane highways. In recent years, most sections of the Northern and Central Corridors across Kenya, Uganda, and Tanzania have been rehabilitated or reconstructed. As a consequence of this assistance, road conditions in the region have improved significantly[78]. However, terrain is a factor that complicates road-building along this corridor and slows goods transit—roughly 91% of the route is considered hilly and uneven, nearly 7% considered level, and the remainder considered mountainous[79].

The following map and table present the status of the roads in the EAC.

[76] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[77] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[78] Regionalizing infrastructure for deepening market integration, World Bank, 2012

[79] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

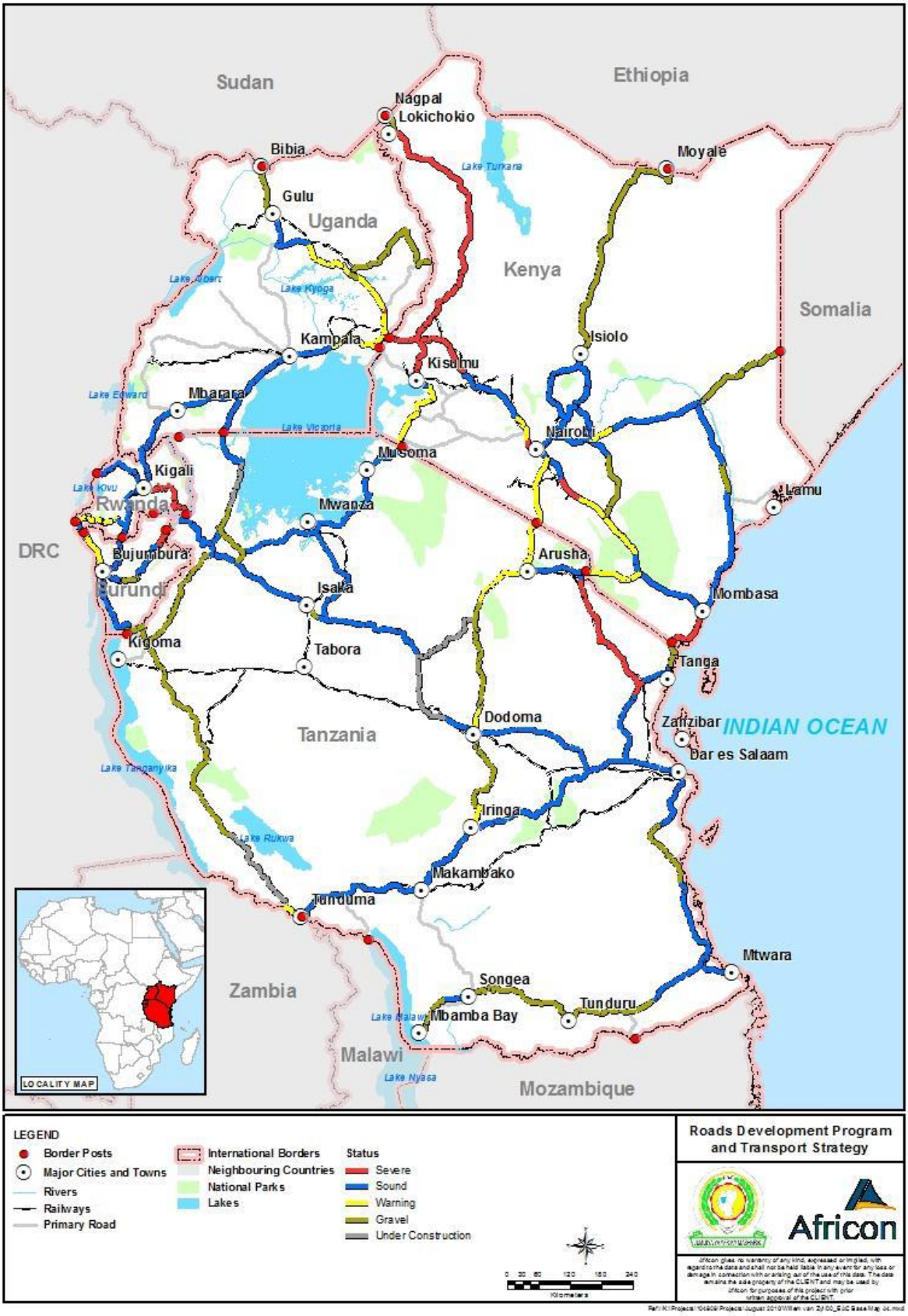


Figure 26: Condition of Northern Corridor Roads[80]

[80] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

Table 3-5: Roads along the Northern Corridor

Segment	*Length*	*Number of lanes*[81]	*Road surface*	*qualitative assessment of maintenance state*	*Existing traffic volumes per day*
Mombasa - Voi	158	2x1	Paved	Good[82]	1617 light veh – 2952 heavy veh[83]
Voi - Konza	272	2x1	Paved	Good[84]	1605 light veh – 3072 heavy veh[85]
Konza – Nairobi	55	2x1	Paved	Good[86]	1617 light veh – 2952 heavy veh[87]
Nairobi - Eldoret	327	2x1, except Nairobi – Naivasha 2x2	Paved	Good[88]	4964 light veh – 1178 heavy veh[89]
Eldoret - Malaba	120	2x1	Paved	Good (rehabilitated in 2011) [90]	4964 light veh – 1178 heavy veh[91]
Malaba – Bugiri	43	2x1	Paved	Rehabilitation (overlay) on-going[92]	High congestion[93]
Bugiri – Jinja	95	2x1	Paved	Good[94] (rehabilitated in 2009[95])	High congestion[96]
Jinja - Mukono	56	2x1	Paved	On-going rehabilitation[97]	5548 light veh; 1511 heavy veh[98]
Mukono - Kampala	18	2x1	Paved	Good (rehabilitation completed in 2011[99])	5548 light veh; 1511 heavy veh[100]

[81] Google Earth

[82] Assumption based on the Annual Report KeNHA 2010-2011: 75% of all Kenyan paved trunk roads is in good condition

[83] TICP, AURECON, 2012

[84] Assumption based on the Annual Report KeNHA 2010-2011: 75% of all Kenyan paved trunk roads is in good condition

[85] TICP, AURECON, 2012

[86] Assumption based on the Annual Report KeNHA 2010-2011: 75% of all Kenyan paved trunk roads is in good condition

[87] TICP, AURECON, 2012

Assumption based on the [88] Annual Report KeNHA 2010-2011: 75% of all paved trunk roads is in good condition

[89] TICP, AURECON, 2012

[90] Assumption based on the Annual Report KeNHA 2010-2011: 75% of all paved trunk roads is in good condition

[91] TICP, AURECON, 2012

[92] Trans East African Networks Match-Making Conference, Kampala, 2013

[93] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[94] Transport Observatory Project, Transit Transport Coordination Authority of the Northern Corridor, 2013

[95] Trans East African Networks Match-Making Conference, Kampala, 2013

[96] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[97] Trans East African Networks Match-Making Conference, Kampala, 2013

[98] TICP, AURECON, 2012

[99] Trans East African Networks Match-Making Conference, Kampala, 2013

Segment	*Length*	*Number of lanes*[81]	*Road surface*	*qualitative assessment of maintenance state*	*Existing traffic volumes per day*
Kampala – Masaka	128	2x1	Paved	Rehabilitation on-going[101]	11432 light veh; 1551 heavy veh[102]
Masaka - Mbarara	135	2x1	Paved	Good (rehabilitated in 2012)[103]	Medium congestion[104] : Insufficient capacity to carry existing traffic volumes[105]
Mbarara - Katuna	158	2x1	Paved	Rehabilitation on-going[106]	Medium congestion[107] : Insufficient capacity to carry existing traffic volumes[108]
Gatuna – Kigali	79	2x1	Paved	General good condition, but on some places road surfacing disappeared[109] plans for rehabilitation 2012-2014[110]	Medium congestion[111]
Kigali – Butare – Akanyaru	165	2x1	Paved	Good, with some fair segments[112] (holes between Gitarama – Kigali)[113]	1397 light veh ; 196 heavy veh[114]
Akanyaru - Kayanza - Bujumbura	115	2x1	Paved	Rehabilitation underway[115]	516 light veh ; 84 heavy veh[116]
Namanga Corridor (Arusha – Nairobi)	300	2x1	Paved	Poor[117]	90% of the route less than 500 vehicles per hour[118]

[100] TICP, AURECON, 2012

[101] UNRA

[102] TICP, AURECON, 2012

[103] UNRA

[104] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[105] Trans East African Networks Match-Making Conference, Kampala, 2013

[106] UNRA

[107] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[108] Trans East African Networks Match-Making Conference, Kampala, 2013

[109] Technical Assistance to the Government of Rwanda for the Feasibility Study of Isaka Dryport Feasibility Study, Royal Haskoning, 2009 and Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

[110] Transport Observatory Project, Transit Transport Coordination Authority of the Northern Corridor, 2013

[111] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[112] Transport Observatory Project, Transit Transport Coordination Authority of the Northern Corridor, 2013

[113] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

[114] TICP, AURECON, 2012

[115] Transport Observatory Project, Transit Transport Coordination Authority of the Northern Corridor, 2013

[116] TICP, AURECON, 2012

[117] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

[118] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

Segment	*Length*	*Number of lanes*[81]	*Road surface*	*qualitative assessment of maintenance state*	*Existing traffic volumes per day*
Namanga Corridor (Nairobi – Isiolo – Marsabit – Moyale)	1800	2x1	Paved up to Isiolo[119]	Good up to Isiolo, remaining segment gravel[120]	90% of the route less than 500 vehicles per hour[121]; busiest stretch north of Nairobi
Kisumu/Bugiri Feeder	200		paved	Unassessed	Maximum of 200 vehicles per hour[122]
Kitui Feeder	200		18% paved	Partly good ; partly gravel[123]	Maximum of 100 vehicles per hour[124]
Masindi Feeder	300		paved	Unassessed	Maximum of 500 vehicles per hour[125]
Fort Portal Feeder	300		paved	Kampala – Mityana: good; Mityana – Kyegegwa: fair; Kyegegwa – Kyenjojo: good; Kyenjojo – Fort Portal: poor[126]	Maximum of 200 vehicles per hour[127]
Hoima Feeder	200		paved	Mainly poor[128]	Maximum of 200 vehicles per hour[129]
Kabatoro Feeder	300		paved	Unassessed	86% of the route less than 100 vehicles per hour[130]

3.6.1 Procedures

Border crossings have traditionally been one of the major chokepoints along the Northern Corridor, due largely to uncoordinated and complicated customs procedures. Recent reforms, like the efforts to establish OSBPs at all EAC-border crossings and to operate customs 24 hours a day, have improved processing times and reduced wait time uncertainty, but these initiatives and their implementation status vary by crossing[131] and are not always accompanied by prolonged opening hours of other agencies at the border.

[119] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

[120] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

[121] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[122] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[123] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

[124] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[125] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[126] Transport Observatory Project, Transit Transport Coordination Authority of the Northern Corridor, 2013

[127] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[128] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

[129] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[130] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[131] Trade facilitation in the East African Community, US International Trade Commission, 2012

Most goods imported to Rwanda or Burundi are not cleared at border posts, but instead must be escorted to Kigali or Bujumbura, respectively, for clearance. The same applies in the other direction, before transporters leave their departure point, they must file export papers with the revenue authority at the capital to be sent to the border post. [132]

Location	*Infrastructural issues*	*Procedures*	*Opening hours*	*Traffic*	*Time*
Malaba (Kenya – Uganda)	Narrow access road, insufficient queuing space for waiting trucks, leading to congestion and accidents[133]; narrow bridge between two customs areas[134]	Partial implementation of an OSBP; RADDEx2.0	Customs & immigration 24/7, other agencies from 8-17[135]	600 trucks per day to Uganda, 450 trucks per day to Kenya[136]	Uganda bound: 3:36 hours, Kenya bound 3:47 hours (2012)[137]
Katuna/Gatuna (Uganda – Rwanda)		OSBP since 2010, RADDEx2.0	Customs 24/7; Ugandan agencies 8-17[138]	80 trucks per day in each direction[139]	3.07 hours for Rwanda bound trucks; 2.42 hours for Uganda bound trucks[140]
Akinyaru/Kinyaru (Rwanda – Burundi)		OSBP at tendering stage; RADDEx2.0	24 hours/day[141]	57 trucks per day in each direction[142]	1 hour - transit

Legal maximum gross weights still vary widely among member countries, with Kenya allowing a maximum vehicle weight of 48 metric tons (mt), Burundi and Rwanda allowing a weight of 53 mt, and Uganda permitting loads of 56 mt. These load regulations are enforced by numerous weighbridges, only escorted transit goods vehicles are exempt from multiple weighing; other transit goods have to be weighed several times. Furthermore, the following problems were reported: weighbridges not properly calibrated, and weighing done per axle instead of axle groups. Weighbridges of Mariakani, Gilgil and Webuye have been automated in 2011[143].

Location	*Time*

[132] Non-tariff measures on goods trade in the East African Community, World Bank, 2008
[133] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008
[134] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[135] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[136] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[137] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[138] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[139] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[140] Border Crossing Monitoring along the Northern Corridor, Fitzmaurice & Hartmann, 2013
[141] burunditourisme.com
[142] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[143] Annual report 2010/2011, KeNHA

Uganda weighbridges : Mbarara, Lukaye, Busitema Kenya weighbridges : Mlolongo, Mariakani, Gilgil, Webuye and Eldoret	2 hours in total[144] Webuye, Eldoret, Gilgil: 1-2 hours[145] Athi River/ Mlolongo, Mariakani : 3-4 hours[146]

To implement customs procedures for entry processing, cargo control, transit, warehouse control, and accounting, four EAC Member countries have opted to use (various versions of) ASYCUDA, while Kenya has chosen to use SIMBA[147].

Since 2012 the revenue authorities of East Africa operate the Revenue Authorities Digital Data Exchange (RADDEx 2.0) platform at key transit borders. RADDEx 2.0 is a software platform for customs and transit data exchange, management and reporting that allows for near real-time transmission of customs documentation to authorized public and private sector users at key border posts[148].

3.6.2 Planned interventions

Action	*status*	*estimated cost*	*Qualitative assessment on the impact*
OSBP Malaba	Construction work on-going		Reduced time loss at border crossing, 24 hour opening
OSBP Akinyaru/Kinyaru	Feasibility study for infrastructure upgrades on-going[149]		Reduced time loss at border crossing, 24 hour opening
Reinstatement of Rwandan weighbridge in Gatuna and Akinyaru	Decided by Rwanda Transport Development Agency[150]	4 USDm[151]	Reduce overloading to limit road deterioration
Mombasa Southern bypass	Design completed, construction will start in 2014	70 USDm[152], funded by JICA	Reduce traffic on Mombasa Island
Mombasa Port Road	Concept in progress	7 USDm[153]	Connection between Mombasa Southern bypass and container terminal Kipevu

[144] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

[145] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010

[146] Analytical Comparative Transport Cost Study along the Northern Corridor Region, CPCS, 2010; before automatisation

[147] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[148] USAID

[149] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[150] New Times, August 2013

[151] Strategic Road Transport Master Plan for Rwanda, Aurecon, 2012

[152] TICP, AURECON, 2012

[153] TICP, AURECON, 2012

Action	*status*	*estimated cost*	*Qualitative assessment on the impact*
Mombasa – Voi upgrade	Concept	455 USDm[154]	Increase road capacity to relieve congestion
Voi – Kibwezi – Konza – Athi upgrade	Concept in progress, prefeasibility commenced	864 USDm[155]	Increase road capacity to relieve congestion
Nairobi: capacity upgrade	Concept in progress (JKIA – Rironi Design and procurement complete)	700 USDm[156]	Reduce travel time of traffic in and through Nairobi
Rironi - Naivasha – Mau Summit – Eldoret upgrade to dual carriageway	Rironi – Naivashi : feasibility ; Naivashi – Mau Summit : concept ; Mau Summit – Eldoret : design in progress	700 USDm[157]	Increase road capacity to relieve congestion
Eldoret bypass	Concept in progress	33 USDm[158]	Reduce travel time of traffic in and through Eldoret
Eldoret – Malaba upgrade	Design in progress	160 USDm[159]	Increase road capacity to relieve congestion
Malaba – Kampala: long term performance based contract over 10 years	Contractor being sought	740 USDm[160]	Improved maintenance of road system
Jinja - Kampala – Expressway (dual carriageway) [161]	Detailed Engineering Design on-going	790 USDm	Decongest eastern Greater Kampala
Widening of Kampala Northern Bypass	Design completed, tendering awaits approval by European investment Bank[162]		Decongest northern Greater Kampala
Kampala Southern Bypass[163]	Detailed Engineering Design on-going	300 USDm	Decongest eastern & southern Greater Kampala
Kibuye – Busega – Mpigi Expressway[164]	Detailed Engineering Design on-going	400 USDm	Decongest southern and western corridors of Greater Kampala

[154] TICP, AURECON, 2012
[155] TICP, AURECON, 2012
[156] TICP, AURECON, 2012
[157] TICP, AURECON, 2012
[158] TICP, AURECON, 2012
[159] TICP, AURECON, 2012
[160] Trans East African Networks Match-Making Conference, Kampala, 2013
[161] Trans East African Networks Match-Making Conference, Kampala, 2013
[162] UNRA
[163] Trans East African Networks Match-Making Conference, Kampala, 2013
[164] Trans East African Networks Match-Making Conference, Kampala, 2013

Action	*status*	*estimated cost*	*Qualitative assessment on the impact*
Gatuna - Kigali (RN2) capacity upgrade	Concept	85 USDm[165]	Increase capacity & reduce travel time
Kigali – Kinyaru (RN1) capacity upgrade	Concept	101 USDm[166]	Increase capacity & reduce travel time
Voi – Taveta/Holili - Arusha	Design complete	261 USDm (132 USDm for Arusha – Holili + 129 USDm for Taveta – Voi); partly financed by AfDB, partly by national governments[167]	Improved access to Northern Corridor from Tanzania

3.6.3 Critical barriers to trade

- Overloading and deferred maintenance resulted in sections with infrastructure in poor state; especially the Rwandan segment needs spot rehabilitation. Other sections face congestion.
- Checks at border posts, weighbridges and roadblocks slow down goods transport and increase the uncertainty of delivery times.
- Overloading control strategy is aimed at 100% checking. However, informal payments to speed inspections at weighbridges, even for compliant vehicles, provide an incentive to not comply with weight regulations, hereby limiting the enforcing power of load limits and speeding up the wear down of roads. [168]
- Lengthy and varying systems of import declaration, payment of applicable duty rates, and (technical and sanitary and phyto-sanitary requirement) standards applied. [169]
- Link between SIMBA and ASYCUDA IT systems has not been smooth[170]
- Clearance of goods in Bujumbura and Kigali instead of at the border post imposes additional time and cost
- Vehicles licensed for transit cannot carry domestic cargo and must use prescribed transit routes, so return routes stay empty often[171]

[165] Strategic Road Transport Master Plan for Rwanda, Aurecon, 2012

[166] Strategic Road Transport Master Plan for Rwanda, Aurecon, 2012

[167] TICP, AURECON, 2012

[168] Trade Facilitation in the East African Community, US International Trace Commission, 2012

[169] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[170] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[171] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

4. PERFORMANCE ANALYSIS OF THE CENTRAL CORRIDOR

The performance of the different components of the Central Corridor is analysed in the present chapter, similarly to the Northern Corridor.

4.1 SEA PORT OF DAR ES SALAAM

Dar es Salaam port is Tanzania's principal port with a rated capacity of 4.1 million (dwt) dry cargo and 6.0 million (dwt) bulk liquid cargo. Figure 27 shows an aerial view of the port. The Port has a total quay length of about 2,000 metres with eleven deep-water berths. Dar es Salaam port handles about 95% of the Tanzanian international trade. Currently the container facilities in the Port are reaching their maximum capacity and potential congestion would cause serious hindrance for further economic development of the entire country and its landlocked neighbours. The major container terminal operator in the Port is TICTS (Tanzania International Container Terminal Services), which is currently operated by a consortium including HPH and is handling the majority of containers at the Port.

Figure 27: Aerial view of Dar es Salaam Port

TPA Outlook for Growth

The Tanzania Ports Authority (TPA) is gearing up for improvement of its operations for cargo and container traffic in a bid to boost lake and sea transport.

The overall traffic performance of cargoes has been increasing at an average rate of nine per cent, where in the year 2012/13 the ports handled total traffic cargoes of 14,000,000 tons which made the collections of about USD 44.3 billion GDP, compared to 12,000,000 tons of cargoes handled in 2011/12. While the container traffic growth has been increasing at an average rate of 11.4 per cent, where in this year alone, it reached to 553,940 TEU for the containers handled by both TICTS and TPA, compared to the year 2011/12 where they handled a total of 530,089 TEU (Note that Port master plan forecast was between 775,000 TEUpa (high scenario) and 649,000 TEUpa (low scenario)). The TPA has established development projects on Lake Victoria which made a great success to Mwanza South, Mwanza North, Nansio, Musoma, Bukoba and Kemondo Bay ports.

One of the challenges to address to accommodate future growth is the deepening of the access channel. With drafts less than 10 metres, Dar es Salaam Port cannot accommodate third generation mega ships that usually have a draft of 12 metres and above.

In addition in a city which is growing strongly and where road capacity is inadequate to cope with the growing number of vehicles, port development, urban development and transport plans must be closely inter-linked. Land availability for the Tanzanian city ports is limited. Development of a green-field port at a limited distance of the existing ports (but well outside the urban area) would allow unrestricted port

development, while connections to existing economic and physical infrastructure can easily be made. A green-field port can be started as a modern port facility to match latest developments in shipping and logistics, without having the heritage of outdated infrastructure, equipment and organization.[172]

4.1.1 Infrastructure

Figure 28: Port Masterplan Dar es Salaam, Source: Royal Haskoning 2009

The port of Dar es Salaam is provided with eleven berths (of a total 2,020m length). Other facilities include the Kurasini Oil Jetties (KOJ), the Single Point Mooring (SPM) and the Malindi and lighter wharves (for coasting trades).

Berths 1-7 are dedicated to general cargo (including container, dry bulk, break bulk and RoRo operations). The terminal has an annual capacity of 2.5 million tonnes, with handling equipment of 28 portal cranes, 27 yard cranes, 119 forklift trucks, 44 tractors and 86 trailers [173].

[172] TPA port master plan, 2009

[173] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

Figure 29 Activity at Berths 1-4

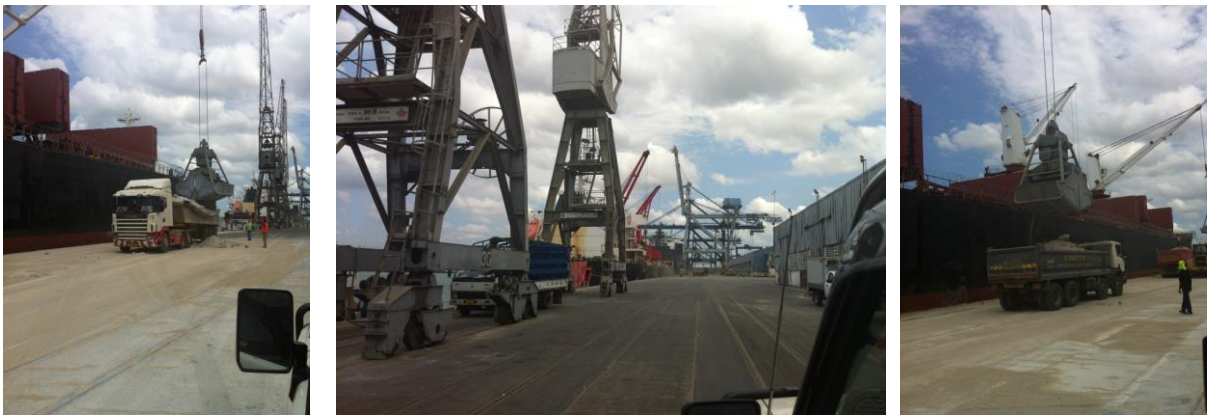


Figure 30 Activity at Berths 5-7 (September 2013)

Berths 8 to 11 are dedicated container terminal on a land area of some 23.5 hectares. The Tanzania International Container Terminal Services (TICTS) consortium was assigned a concession up to 2025 to manage the container terminal. The stacking area is designed to hold 11,500 TEUs stacked three high for an annual capacity of 400,000 TEUs.

Figure 31 Looking at TICT (B8-11) (September 2013)

The container equipment consists of 3 STS 40t gantries, 14 RTGs, 14 front end loaders and 13 forklifts[174]. In addition, TICTS has two modern mobile harbour cranes to expand the quayside handling capacity for containers[175]. In the container yard, forklift trucks or reach stackers are used, which reduces the stacking capacity significantly compared to the use of RTGs.

In the back port area of berths 9-11, rail facilities for rail are located, equipped by a single Rail Mounted Gantry (RMG) crane, designed for lifting one over two high. The facility has a holding capacity of 110 TEU. Unpaved ground between the rails under the main span provides an additional storage space.

The port has seven transit sheds[176]. These are located immediately adjacent to the apron and provide the port with a covered floor area of approximately 50,000 square metres. These are designed for short term storage and act as a general and break-bulk cargo consolidation area for the different loading and unloading requirements of ships and land transport so that the rates of handling of these respective modes can be adjusted to the needs of each.

Figure 32 Looking at TICT (B8-11) (September 2013)

Long term covered storage space is provided by three additional sheds, including: the 10 day cargo shed at the back of berth 7 (5,000m²); the mid port and back port sheds on berth 3 (10,000m2 and 8,800m2 respectively). In addition to functioning in a manner similar to that of transit sheds, these provide covered space for slow moving or high volume cargoes, including commodities that are only available during specific periods.

TICTS have also temporarily leased paved stacking space in the back-port area on berth no. 7 - used for container scanning operations.

[174] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[175] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[176] Excluding warehouses on Malindi Wharf that is used for coasting trades, including passengers embarking on the Zanzibar ferries.

Figure 33 Scanning operations (left) and grain silos (right) (September 2013)

A grain terminal is located in the back port area, adjacent to Bandari Road. The grain terminal has the following facilities[177]:

- weighbridges of 40 metric tonnes;
- 2 dump pits with 2 intake lines of 125 tonnes/hr. each;
- storage bins with a 30,000 metric tonne capacity;
- 3 outtake lines to bagging stations with capacity of 125 tonnes/hr. each;
- 2 recirculation lines with a capacity of 125 tonnes/hr.;
- 16 direct truck loading spouts;
- a bagging station with three bagging lines each with capacity of 30 tonnes/hr.;
- one truck loading spout at each bagging station; and
- a bag warehouse with a capacity of 1,500 tonnes.

The main bulk liquid terminal, Kurasini Oil Jetty (KOJ) consists of two petroleum berths, KOJ-1 designed to discharge tankers up-to 45,000 deadweight tons, and KOJ-2 designed to load and discharge coastal tankers up-to approximately 7,000 deadweight tons.

Products handled at KOJ-1 include motor gasoline (mogas), gasoil, kerosene, furnace oil, vegetable oil, and molasses. A line for liquefied petroleum gas (LPG) has been decommissioned as LPG imports will move to KOJ-2. Two additional lines for vegetable oil were installed to allow for simultaneous discharge of multiple grades. Products handled at KOJ-2 are gasoil, mogas, and industrial diesel oil (IDO) [178]. The oil jetty needs to be replaced to provide space to the new container berths 13-14.

The Single Point Mooring System is located outside the port within Mwjimwema Bay and has been replaced in 2012. In the recent past the sole use of the SPM has been to transfer crude oil to Zambia, whereas the new project allows import of multi-petroleum products (white and black oils) offshore facility, designed for tankers up to 150,000 deadweight tons, including pipelines linking to the TIPER (and other) bulk storage Facility at Kigamboni (the eastern shore of Dar es Salaam harbour)[179].

[177] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[178] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[179] http://www.seanews.com.tr/article/TURSHIP/TANKERS/89667/-africa--completes--Leighton--Mooring--News-by-topic--offshore--project--Single-Point--Tanzania./

4.1.2 Accessibility

4.1.2.1 By sea

The entrance to Dar es Salaam Port from the sea is through a 2.8 km long, 140 m wide access channel. The present depths of the access channel are reported to be about 9.5 m channel depth. The entry to Dar es Salaam Port is restricted to vessels with a maximum length of 234 m. For larger vessels navigation is possible during high tides. The channel is a typical one-way channel for larger vessels[180].

The only exception is crude oil tankers calling at the Single Point Mooring (SPM) since they do not use the access channel.

[180] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

4.1.2.2 By rail

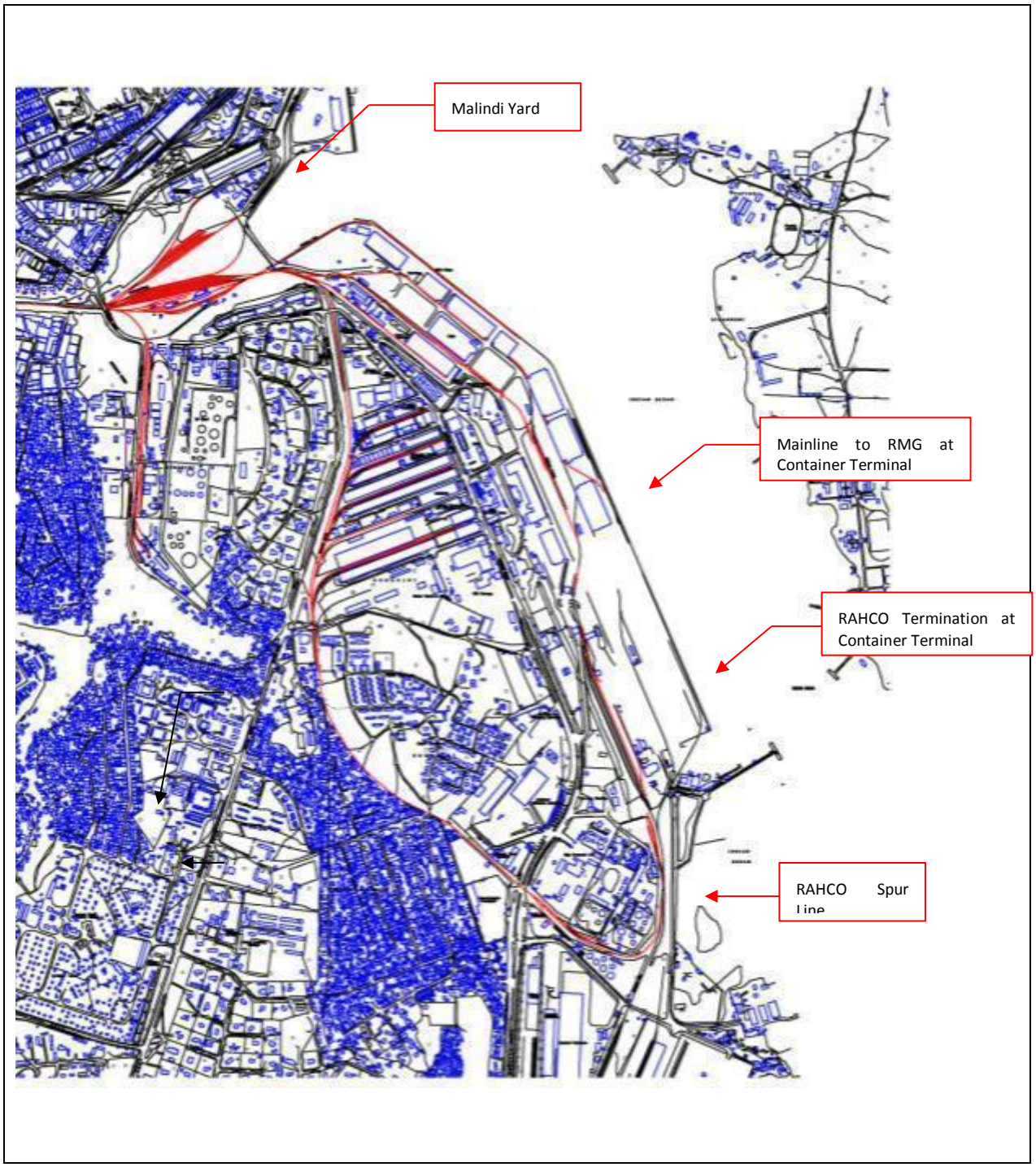


Figure 34: Port Rail System

Within the port, all rail infrastructure is owned and maintained by Tanzania Ports Authority (TPA) and consists of both the 1.000m gauge (RAHCO network) and the 1.067m gauge (TAZARA network). The port links to the RAHCO system via the Malindi marshalling yard, where a single dedicated spur line of 2,5km routes to the main station of Ilala. At Malindi marshalling yard, wagons are shunted to various parts of the port on two branch lines: the first one routes along the berths via the port managers office and is no longer in use; the other one routes through the main part of the port up to the RMG area constructed at the back of the container terminal, with various branches to the quays, the transit and mid-port sheds.

There is no mainline looping system on the RMG area at the back of the container terminal, reversing track or turn-back. The capacity of the rail network within the port is therefore very low.

The TICTS RTG assigned to rail operation spans only 3 rail tracks (2 TRL and 1 TAZARA) and reach stacker are not always available to load wagons at the track which it not served by the RTG. In addition, the sidings at the RTG terminal is a dead-end, increasing the time needed to collect and deliver rail wagons[181].

An additional rail line (for the RAHCO network) runs parallel to the RMG. This line is outside the reach of the RMG and is designed to allow goods from containers to be de-stuffed for carriage by rail in break bulk form.

Besides the RMG area in the container terminal, there are no handling areas dedicated to rail transport. The rail network was mainly designed to allow wagons to be shunted along the quay, for direct delivery or discharge, which is not efficient. Because the quay is quite narrow, the parking of wagon rakes adjacent to the berth often impedes other cargo movements[182]. Container volumes handled directly by TPA over berths 1-7 can be loaded to trains at the TICTS facility or, in the mid-port area behind berths numbers 6 and 7 where there is a break-of gauge between the RAHCO and TAZARA railway systems.

According to the TPA CAS Study, the rail layout within the Port presents others problems:

- The TRL and TAZARA rail links are of different gauges, and operate independently of each other. Not all the berths and sheds can be accessed by each operator.
- The single track rail links cut across the paved area used by port equipment and road vehicles, whose passage frequently blocked by inconveniently parked wagons or rail shunting operations.
- There are no areas suitable for all-weather loading of bulk cargoes.
- There is insufficient space available in the port for the unloading of empty containers.
- Shunting engines in the port are generally under-powered.

Within the greater Kurasini Areas, a rail branch line turns out from the Malindi marshalling yard and runs in a cutting adjacent to part of Kilwa Road before looping south of the port to a molasses discharge station adjacent to Kurasini Oil Jetty. Various spurs to warehousing are developed on the Kurasini Blocks A and B. An additional 20 industrial plots exist on Kurasini Block ‘C’ further along Bandari road. This area is currently characterised by poor and inadequate infrastructure, uncoordinated development (in terms of modern port requirements) and a mushrooming of poorly regulated activities.

Figure 35 Back of port rail terminal (left) and intra port rail lines (middle and right) (September 2013)

[181] Royal Haskoning, TPA CAS Study, 2009

[182] Royal Haskoning, TPA CAS Study, 2009

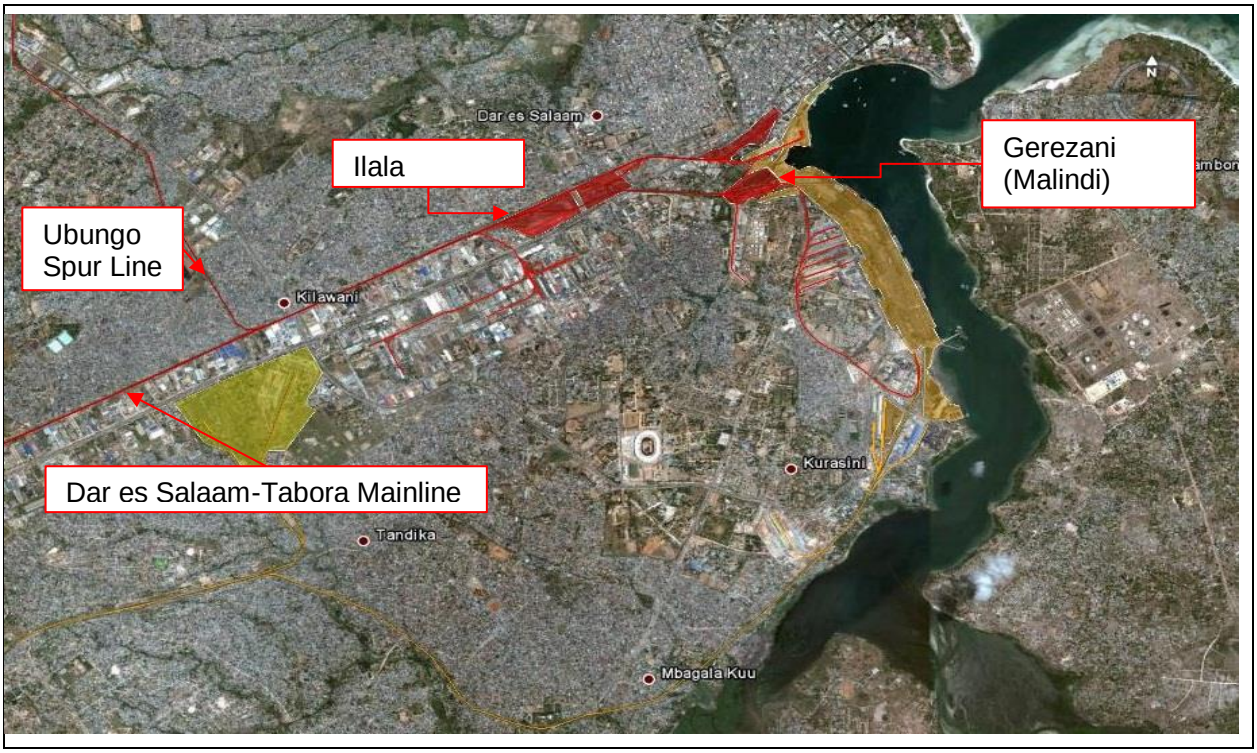


Figure 36: Intermodal Rail Facilities Dar es Salaam[183]

Kurasini ICD[184] has an area of 6.5 ha. It includes a specialised container freight station with a warehouse, yard, and handling equipment to provide reliable services for a range of LCL cargo. The services rendered include stripping import containers in the warehouse, direct stripping onto trucks, stuffing of export cargo into containers, transferring export containers to the terminal, and stripping import containers onto rail wagons.

The Ilala ICD[185] is located on the mainline link to the port of Dar es Salaam, 2km from the Malindi yard. It is developed within the existing rail marshalling yard adjacent to the Julius K Nyerere dual carriageway on approximately 1 hectare of land, designed for use with container reach stackers. Two goods sheds (with rail sidings) are located immediately adjacent to the container handling area, providing the facility with a container freight station (CFS) services

The Ubungo ICD[186] is located on a spur line which turns off the mainline at Buguruni 5km from the port before routing northwards for a further 5.5km. It is owned by Tanzania Ports Authority (TPA) and operated by Tanzania International Container Terminal Services (TICTS). Open container storage yard space is approximately 2.4 hectares and the site is provided with a shed of 24,400 m2 and handling equipment to provide reliable services for a range of less than container load (LCL) cargo. The services rendered include stripping of import containers in the warehouse, direct stripping of cargo onto trucks, and providing a storage area for long-staying containers and executing auctions for over-staying containers.

Since its construction in 1988, the facility has remained largely unused due to lack of rail services. Access from Morogoro road is provided at the north-west of the property and the TRC rail spur line enters the depot on the southern boundary through two right-hand turnouts.

[183] Land-bridge concept study, RAHCO, 2012

[184] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[185] Land-bridge concept study, RAHCO, 2012

[186] Land-bridge concept study, RAHCO, 2012

The relatively small size of the ICDs adversely affects the economics and logistics of wagon loading.

4.1.3 Procedures

In 2013, TPA has automated its billing and payment system in the port of Dar es Salaam. This aims at limiting the use of papers and facial contacts, hereby improving revenue collections and increasing the efficiency in service delivery to the port clients.[187]

Prior to activation of the electronic system, clients had to physically collect invoices from TPA offices, effect the payments at CRDB bank and take the bank's pay-in slips back to TPA for receipt, before getting the release order for the cargo. [188]

Regarding rail operating procedures, the TPA CAS Study notes several problems impacting the operations:

- Communications, coordination, joint planning and clear allocation of responsibility and authority between the operators, TPA, TICTS and the customers are reported to be poor.
- The transfer of containers to ICDs, irrespective of whether they are to be delivered by road or rail, has made it extremely difficult to assemble container trains, as the boxes may be split between different ICDs.
- Inability to place and withdraw wagons at night due to lack of Customs and security staff.
- Uncertainty about when cargo will be cleared by Customs, which complicates the advance planning of train movements.

4.1.4 Planned interventions

Tanzania will spend 343 billion shillings ($211 million) over the next 12 months upgrading Dar es Salaam Port. Improvements in the year through June 2014 will include strengthening and deepening seven berths, a new conveyor belt and silos, and construction of additional berths.[189]

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
New container terminal berths 13 & 14[190]	CHEC has completed topographical and hydrographical studies and is currently working on detailed design so that construction can start. [191]	400 USDm, secured by China's Exim Bank	annual throughput capacity of 600,000 TEU per annum when complete

[187] Website TPA

[188] Website TPA

[189] Website TPA

[190] Land-bridge concept study, RAHCO, 2012

[191] The East African, August 3, 2013

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Dredging and deepening the channel[192]			Improve access for large vessels
Greater Kurasini area: improve access to the port industrial zoning, traffic flow arrangements, railway capacity, gates and parking areas in the port environs. [193]	Concept	1000 USDm; part of a wider program of support funded by Trade Mark East Africa	Improve accessibility of the port
Construction of floating dockyard[194]	Prefeasibility complete	524 USDm	Replace existing slipways that will be removed for construction of berths 13&14
New berths and yards at Vijibweni, linked by a bridge south of the existing dockyard[195] (See hereunder)	Identification stage		Increase port capacity
Expansion of Berths 1-7[196] : dredging to 12m; berths 1-4: strengthening the quay + developing a dedicated general cargo facility; berths 5-7: creation of specialised dry bulk terminal + expansion of the grain silo to 60000 tonnes	prefeasibility stage; announced as part of financial year 2013-2014	211 USDm[197]	Increase capacity of general cargo berths, faster loading and unloading times, allowing larger vessels
Electronic Single Window System: automation of processing and handling information between traders and government institutions[198]	Plan announced by TPA	10 USDm	increase operational efficiency and lead to time saving
Integrated Security System: restriction of access and movement within the port premises[199]	Plan announced by TPA		strengthen security and customers' property
Bagamoyo port development (See hereunder)	Concept	$10bn, mainly from Chinese sources and constructed by Chinese Merchant Holdings of Hong Kong	Additional sea port capacity in vicinity to Dar – yet to be connected to Central Corridor

[192] TICP, AURECON, 2012

[193] TICP, AURECON, 2012

[194] TICP, AURECON, 2012

[195] Land-bridge concept study, RAHCO, 2012

[196] TICP, AURECON, 2012

[197] Hellenic shipping news 27 June 2013

[198] Website TPA

[199] Website TPA

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
PPP Act and TPA Act	Under review	Modest	Enable private investments in Port and in infrastructure projects

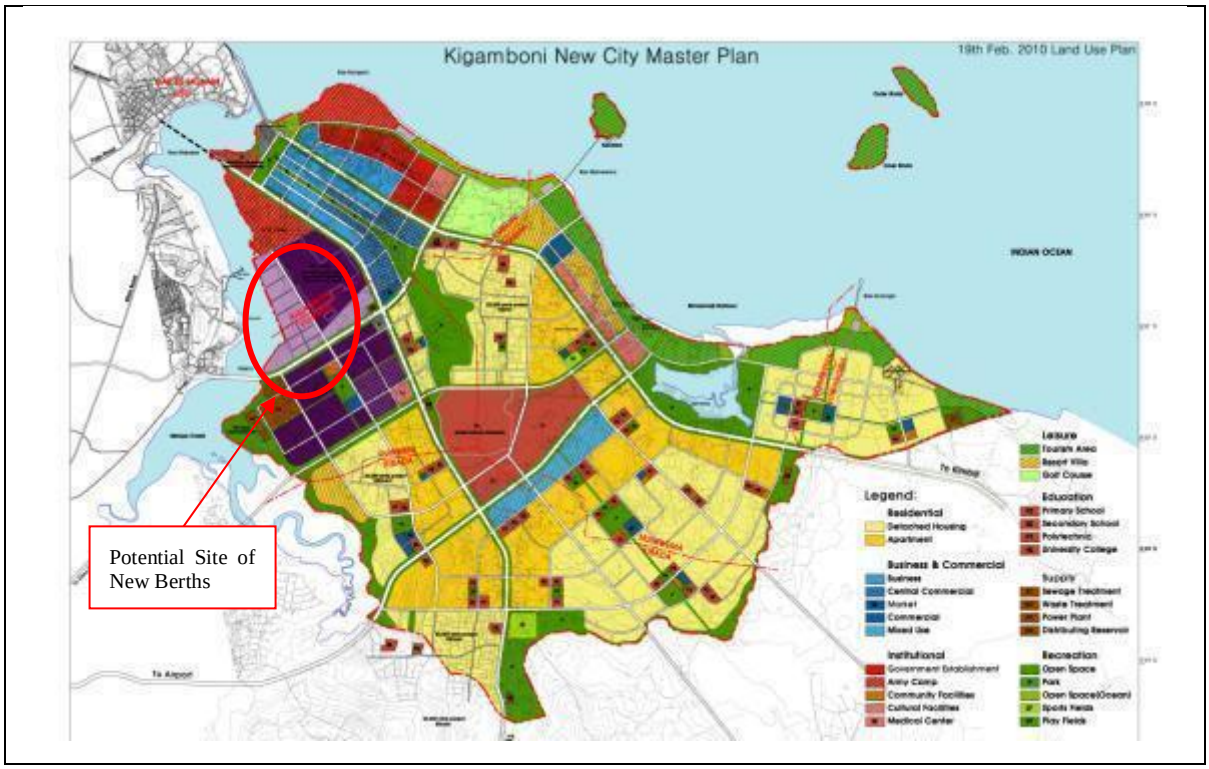


Figure 37: Potential New Berths Vijibweni

Bagamoyo Port Development

The Chinese President has sealed Tanzania's Bagamoyo project. Tanzania has laid down its claim for a future large slice of regional trade through a deal with China to build the new port of Bagamoyo in its Mbegani area, North West of Dar es Salaam, at a total cost of $10bn.

The deal was announced by the President of China, Xi Jinping, while recently visiting Dar es Salaam and forms part of a major investment by the China in the infrastructure of the Mbegani area and East African seaboard – a project to be completed by 2028 with the expectation that Bagamoyo port will supersede Dar es Salaam port as the country's main port and container handling centre.

The new port will be built with a draft sufficient to accommodate higher capacity container vessels up to 10,000 TEU and beyond, as well as possess specialised roll-on roll-off berths and other cargo berths.

The overall scale of the planned development is such that it will provide a highly competitive solution to Kenya's port expansion plans in Mombasa and Lamu which, as well as catering for national trade, are focused on meeting the needs of surrounding landlocked countries such as Uganda, Rwanda and Burundi.

Kenya has ground out plans for a new deep water container terminal in Mombasa – now under construction – and has embarked upon major new port development at Lamu, but the Bagamoyo port plan has a stronger profile and coherence to it. The money is down and in the background are new offshore gas discoveries for Tanzania which promise to play their part in promoting a strong and enduring relationship with China.

The first-phase development of Bagamoyo port is expected to be in operation by 2017 with construction undertaken by China Merchant Holdings of Hong Kong

4.1.5 Critical barriers to trade:

- Maintenance and capital dredging required[200]
- Combined container and cargo traffic exceed the port's designed capacity with 40%, resulting in long dwell times[201]
- There is slow productivity at the port due to lack of sufficient cargo handling equipment, including heavy lift equipment. [202]
- There are no computerized operations and interface with terminal operators[203].
- Lengthy release of delivery order[204]

[200] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[201] Trade facilitation in the East African Community, US International Trade Commission, 2012

[202] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

[203] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

[204] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

- Delayed transit containers must wait in the port for transport, instead of bonded depot, this causes severe congestion.[205]
- The Dar es Salaam Port has been marred by incidents of theft, with the authority incurring huge costs to compensate victims for lost goods, due to security lapse and existence of a network of thieves within the port[206.]
- No single source of information for transit importers and exporters to track the whereabouts of their cargo and other shipping information[207]
- Poor accessibility by road : bad road condition of Bandari Road[208]
- There is no mainline looping system on the RMG area at the back of the container terminal: reversing track or turn-back and trains generally have to use the same line to enter and leave the port. This operation hinders use of the network, particularly where other long staying wagons occupy the various branch lines[209].
- The rail network inside the port was designed to allow wagons to be shunted along the quay when the slow rate and small scale of general cargo operations allowed a high proportion of direct delivery to rail transport.

[205] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

[206] Website TPA

[207] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

[208] Technical Assistance to the Government of Rwanda for the Feasibility Study of Isaka Dryport Feasibility Study, Royal Haskoning, 2009

[209] Land-bridge concept study, RAHCO, 2012

4.2 RAIL

4.2.1 Organization of the Railways on the Central Corridor in Tanzania

4.2.1.1 Respective roles: Current situation

RAHCO on behalf of the Government of Tanzania owns the railway infrastructure while Tanzania Railways Limited (TRL) is the operator.

RAHCO is conferred with powers to develop, manage and maintain rail infrastructure and to provide rail transport services through Joint Venture, Concession and the like. RAHCO, being empowered by section 12 of the Railway Act, 2002, delegated its powers to provide rail transport service to Tanzania Railways Limited (TRL).

The major roles and functions and functions of RAHCO are:

- To secure and provide rail infrastructure;
- To manage Tanzania Railways Corporation (TRC) residual assets and short term liabilities;
- To identify and develop new railway projects;
- To enter into agreement with other entities in order to secure the provision of rail
- transport services, whether by means of Concession, Joint Venture, Public-Private
- Partnerships or other means, and to this end to delegate its own function of providing rail transport services to one or more railway operators.;
- To monitor the Concession Agreement;
- To upgrade the railway infrastructure beyond the level to be undertaken by the concessionaire; and
- To invest in railway assets and infrastructure, among others.

According to the concession agreement between TRL and RAHCO, TRL is charged with the responsibility of routine and periodic maintenance of the track and structures, maintenance and operation of signaling and telecommunication and running and control of trains.

SUMATRA (Surface and Marine Transport Regulatory Authority) is the safety and economic regulator for railways under the Railways Act 2002 including issuing of operating license.

One of the key functions of SUMATRA is to look at the safety of the railway transport. The regulator checks if the operators comply with the safety regulations. Therefore, inspections are carried out frequently in order to check if the operators are in conformity with the regulations.

The regulator also checks whether the infrastructure is within acceptable standards and periodically inspects the state of the railway infrastructure (railway line, bridges, buildings). The regulator also inspects the rolling stock (wagons, coaches, locomotives) to check if it meets the conditions defined by the regulator.

The regulator issues the licences to the operators. Currently, no railway operator in Tanzania holds a licence as some criteria are not met yet. Two operators have applied for a licence: TRL, which had a licence when it was privatized but had to re-apply after its change of status at the end of the concession, and TAZARA.

Remark: if a shipper invests in its own locomotives and wagons and asks TRL to operate its train, the shipper doesn't need a licence. However, SUMATRA must be informed of the extension of the services performed by TRL. This rolling stock will also be inspected by SUMATRA, as it must approve all the new and refurbished rolling stock. Therefore, SUMATRA is currently following the rehabilitation of eight locomotives at the Morogoro workshop.

4.2.1.2 Respective roles: Future perspectives

It is in anticipation that when the condition of the infrastructure improves and traffic in railways increases more operators will be interested. With more than one operator in place, maintenance of the track and structures, maintenance and operation of signaling and telecommunication and control of trains will be taken over by RAHCO.

RAHCO will give the operators access to the network and will perceive an access fee (toll) which will be regulated by SUMATRA that will ensure equal conditions to all the operators. There are currently no tolls paid to RAHCO.

SUMATRA is currently drafting the act which will allow to have other operators in the near future, and to establish a Railway authority to manage the operators.

4.2.2 Permanent way on the Central Corridor

4.2.2.1 Preliminary remarks

The permanent way is an old one metre gauge track constructed during the colonial era traversing in areas where heavy earthworks, long and high bridges and tunnelling was avoided. As a result the track passes in valleys near rivers and in plains with poor soils (black cotton soil) and subjected to floods and wash away especially between Kilosa and Gulwe causing frequent and long traffic interruptions. The track also crosses difficult hilly terrains between Dar es Salaam and Morogoro and the Rift valley between Dodoma and Tabora with gradients up to 2% and curves up to 8 degrees.

With these limiting sharp parameters, the light rail sections of 56.12 - 80 lb/yd and bridges and culverts with axle load as low as 10 tons, the railway has been operating with light rolling stock with max axle load of 13.7 tons for locomotives and 14.2 tons for wagons and max speed of 56 km/hr.

4.2.2.2 Introduction

The railway network owned by RAHCO comprises a total of 2,707 km of single track connecting Dar es Salaam to the principal destinations of Kigoma (Lake Tanganyika), and to Mwanza (Lake Victoria), and Tanga and Arusha in Northern Tanzania, both connected by the Link Line.

The Central Line, connecting Dar es Salaam to Mwanza and Kigoma (totalling approximately 1,700km) currently carries almost all the passenger traffic and about 95% of the freight traffic. The central Line also serves the land locked countries of Uganda, Rwanda, Burundi and Democratic Republic of Congo via intermodal services (rail and road or rail and lake transport). Some sections of Central line have been re-layed with 60lb/yd and 80lb/yd rail materials, but a significant part of the track still operates with the original German rail (supplied before World War I). The German rail in the Central Line between Kitaraka and Malongwe and from Igalula to Kigoma has deteriorated and broken rails and rail fractures have increasingly become serious problems. However, the section between Kitaraka and Malongwe is currently being upgraded to 80lb/yd. In general for three, four decades the railways have lacked the necessary funds for investment and maintenance

4.2.2.3 Track Structure

A Rails

The heaviest rail section on the Central lines is 80lb/yd (appr. 40kg/m). A major portion of the Central line remains with light rail sections of 60 and 56.12lb/yd. The eastern part from Dar es Salaam to km 305 is mainly laid with 60lb/yd rails and the western part of the central line mainly the Tabora – Kigoma section and few portions between Itigi and Tabora still have the old German rails of 56.12lb/yd. The whole of Mwanza line is constructed with 60lb/yd materials. The rails on the main lines are a mixture of welded and jointed rails. The defunct TRC started welding the 60lb/yd and 80lb/yd rails (Mwanza line 100 % and the newly laid 80lb/yd rails section about 80 %).

The following table presents an overview of the rail materials currently in place.

Table 4-1: Overview of the rail materials currently in place

Section	Section Km		Weight	Length in Km	Year Laid	Condition
	From	To	lbs/yd			
Dar es Salaam - Tabora (DSM – TBR)	0	20	60	20	1960 - 1978	Overstretched
	20	42	80	22	2001 - 2002	New
	42	305	60	263	1960 - 1978	Overstretched
	305	530	80	225	1978 - 2000	In good condition
	530	546	80	16	2008	New
	546	626	80	80	1991 - 1995	New
	626	641	80	15	2008	New
	641	693	56.12	52	1913	Overstretched
	693	705.5	80	12.5	2009	New
	705.5	730	56.12	24.5	1913	Overstretched
	730	803	80	73	1999	New
	803	840	56.12	37	1914	Overstretched
Tabora-Kigoma (TBR-KGM)	840	1254	56.12	414	1914	Overstretched
Tabora-Mwanza (TBR- MZA)	0	379	60	379	1972	Fairly good condition

Figure 38 Worn out and Brocken 56.12Ib/yd rail ends and joint fittings

B Sleepers

All the sleepers in the system are steel to match the rail profile except at turnouts and on some bridges where they are wooden. Also wooden sleepers are found in the approaches to stations where light signaling existed between Dar es Salaam and Ngerengere stations. The fastenings are mainly clips and bolts with a few sections of 60lb/yd rails with elastic Pandrol clips. All the 80lb/yd rails are laid with elastic Pandrol clips. From the early sixties all the new sleepers were ordered and manufactured with a provision to be reused in gauge widening to Cape gauge of 1,067mm.

C Turnouts

System wise there are three types of turnouts

- 1:12 turnouts placed in mainlines
- 1:8.5 turnouts placed in loop lines
- 1:7,5 turnouts placed in loop lines but mostly in sidings. These are few and normally of lighter sections of 45 and 50lb being faced out.

Most of the turnouts that were laid before 1970 are worn out with broken, cracked or damaged parts along with defective or missing fastenings such as chairs, studs or bolts. This is caused by poor maintenance practices, lack of replacement parts and none or poor lubrication. The turnouts are laid on timber sleepers but most of them are rotten and there is serious shortage in their supply.

Figure 39: Detail of a turnout (Kazi Kazi station)

Turnouts on main lines are of 60lb materials with few cases still having old 56.12 GHSC materials. Recently between 2004 and 2006, under the Belgian grant, 280 new turnouts of 80lb materials were supplied and all installed in Central line on DSM – KGM and TBR – MZA lines, replacing the old and defective 56.12 and 60 lb turnouts.

Very few turnouts are properly ballasted and there is a standard speed limit of 15km/hr on main line turnouts. Although there is no technical reason for this limit, it is a safety measure against improper points setting and defects.

D Ballast

The ballast is of crushed rock (mainly granite). Most of the lines are characterized with inadequate ballast sections resulting in very unstable track causing accidents and speed restrictions. The situation becomes worse in areas with weak formation especially those with black cotton soils. Some areas with poor ballast and weak formation have been improved by putting a layer of quarry dust.

Ballast is an important component in the track structure as it carries the axle loading to the track bed safely and provides resistance to horizontal movements of the track. It also gives the resilient condition for comfortable ride. In addition it assists in keeping away dust and vegetation growth on the formation. In the whole network ballast is inadequate with exception of the recently relayed 80lb sections. There are sections such as Tabora - Kigoma and branch lines which are still earth ballasted. Most of the station yards lines have very little ballast or no ballast at all.

E Ballast Quarries

Historically, the railway used to have its own quarries with semi-mechanized production until mid-1980s when bigger mechanized modern quarries were started at Mkegumba located at km 50 in Kilosa - Kidatu branch line and Tura located at km 695 along Central Line by assistance of CIDA and EU respectively. Mkegumba equipment was later transferred to Pangani quarry km 8 along link line but the equipment has been scrapped. Tura quarry is still operative with minimal production.

The small quarries which used to supply ballast for railway were located near the following stations:

- Kidete in Central Line.

- Lugufu near Kazuramimba in Kigoma line
- Malampaka along Mwanza line.
- Tumbi near Tabora along Kigoma Line. Dormant but the siding is still there.

There is no good rock between Dar es Salaam and Morogoro near the railway line to open a quarry due to high mica content. Private suppliers of good ballast had once been contracted to supply the ballast at Morogoro and Mikese railway stations, brought far away from quarries along the trunk roads. There are several road projects running parallel to the railway line from Manyoni to Kigoma. Several quarries with good rock have been established. These quarries operated privately can be a good source of ballast with economical haul distance.

F Ballast Hopper Wagon (BHB)

In mid 1980s following the start of major quarries at Mkegumba and Tura, TRC had more than 70 ballast wagon but due to accident and inadequate maintenance most of them have broken down beyond repair. TRL is now having only 17 wagons in working order.

With poor production of ballast the engineering train with the remaining BHBs was shared between the engineering districts to haul quarry dust to sections needing formation improvement/ stabilization such as the black cotton areas. Following the start of the 89km relaying project between Kitaraka and Malongwe in the Central line all the wagons have been tied to the project.

G Formation and Drainage

Formation is the surface on which the track (including ballast) is laid. Traditionally, it is the finished surface of the earthworks. The formation must have ability to satisfactorily support the track whether wet or dry. The railway track traverses through various difficult terrains, where we have cuttings and fills, in swamps and on areas with poor soil beds such as black cotton soil. The formation needs to be well drained and protected from water flowing parallel or across the track by providing well maintained side drains, catch water drains and culverts or bridges.

H Flood Prone Areas between Kilosa and Gulwe

The railway line between Kilosa (km 283) and Gulwe (km 366) runs in a relatively narrow river valley beside the Mkondoa River. This river disappears for much of the dry season, but is subject to both flash flooding and changes of location in the rainy season.

In year 1998 Tanzania experienced heavy El Niño rains which caused extensive damages in infrastructure such as roads, dams and the railway lines. The railway infrastructure was seriously affected in many ways such as sand silting, flooding and washing away of railway track, culverts and bridges. The Kilosa – Gulwe section was particularly badly damaged and was closed for 8 months. Other areas which were seriously affected were the Bahi – Makutopora section in Central line, Ipala - Bukene and Fela - Mwanza in Tabora Mwanza line and several portions in Branch lines. Restoration works were done on a permanent basis and except for the Kilosa – Gulwe section no serious effect has occurred in the above sections.

Between Dec 2009 - January 2010 and Dec 2011 - January 2012 heavy rains caused repetition of very serious damages between Kilosa and Gulwe where 32 locations were seriously damaged with a total length of 4.64km. Extent of restoration/protection works covered 8.65km. The nature of damage was as follows:

- Washed away culverts and bridges due to low capacity
- Embankment washed away due to changing course of the water flows and non-existence of bridges and culverts
- River banks washed away towards the track and in some cases washed away track formation
- Track buried to heavy deposition of sand
- Deep gullies approaching or crossing the track caused by underground piping and erosion backwards from the river,

- Heavy scouring around the bridge structures
- Ballast washed away
- Silting and blockage of culverts
- River banks washed away and threatening damage or collapse of station buildings and gang camps
- Serious wash away of embankment and river bed widening in both sides of major bridge km 293 where Mkondoa river crosses the line,
- Complete wash away of recently constructed bridge at km 303

RAHCO has already done substantial and impressive work which restored operation on this section after the above damages. The remedies done include:

- Reconstruction of embankment and introduction of new waterways
- Protection of abutments and river beds downstream and upstream in bridges and culverts
- Protection of the embankment by gabions and mattresses where the river is flowing close to the line
- Protection of river banks by gabions and mattresses for river crossings to avoid the river changing course near railway bridges
- Construction of catch water drains and direct the water to nearest culverts and bridges
- River training and growing of water erosion resistant vegetation
- Raising the embankment in flood areas
- Realignment of the line to higher areas away from the river
- Construction of new bridges and culverts
- Redesign and reconstruction of bridges at km 293 and km 303. Reconstruction is going on.

Figure 41 River bank protection Mkondoa River between Kilosa and Gulwe

Figure 40 Reconstruction of a bridge at Mkondoa river crossing km 293 between Kilosa -Gulwe

After all the restoration works done by RAHCO, there is no guarantee that the problem has been permanently solved at all affected sections as has been the case before and the river is now closer to the track, posing more threats in future.

A study has been proposed by RAHCO to assess what the causes of the problems are and whether there are measures which could be taken to provide more permanent solutions.

I Bridges and Culverts

General Condition of the Bridges

RAHCO maintains a Bridge Register prepared by the defunct TRC in 1996. This is a complete inventory of bridges and structures showing the location, year of construction, structure type, length, design load, loading standard, catchment area, opening size, and rating condition of structure from "A" to "E" with condition A being in excellent condition and E in the worst condition, essentially needing replacement or significant repairs.

There is assortment of types of bridges ranging from short spans which include concrete pipe culverts, ARMCO pipe culverts and concrete box culverts to longer spans that include plate girder bridges, reinforced concrete, composite steel/concrete, steel truss and precast beam/concrete deck bridges.

Permissible axle loads on the RAHCO network are 13.7 tons for locomotives and 14.2 tons for freight wagons. This axle load limitation has been on account of both bridge capacity and rail weight. The Central Line has rail sections of 56.12, 60 and 80lb/yd. Most of the bridges along the rail Central line have axle load less than 15 ton.

Design Axle Load (tons)	No of bridges	%
10	873	59.3
11 -12	218	14.8
13.5	6	0.4
15	237	16.1
>15 -18	4	0.3
>18 -25	133	9.0
TOTAL	1471	100.0

As indicated above, the dominant design loads of individual bridges on the Central Line is 10 and 15 tons. Around 75% have axle load less than 15t. Those structures having a design load of 10 tons were constructed during the German colonial era, while those having 15 tons were constructed during British rule. Around 10% were constructed with an 18 -25 t UIC design axle load during Bridge rehabilitation project financed by KfW beyond year 1980.

With respect to bridge spans, a majority of the bridges along the network (>65%) are in the range of 2-5 metres long; a little over 20% are also in the range of 5-15 metres long. A small proportion--albeit it greater than that of bridges under 2 metres-- have spans greater than 15 metres long (approximately 8.5%)

Figure 42 Typical German bridges Steel beams encased in concrete deck supported by stone massonry abutments

On bridge conditions, it appears that a little over 75% of the bridges are graded as being in either condition B or C. Although 5% of the bridges have been graded as being in condition A, worth noting is that a greater proportion—14% and 4% are graded as being in condition D and E respectively

Track upgrading to 80 lb/yd will permit higher axle loads (20 tons) on the part of the rail but on the part of bridges it is limited to axle load less than 15t.

Maintenance Condition

During the inspection, it was noted that there has been no planned maintenance in the recent years. Some defects which could be attended at first glance with little cost have developed to threatening the safety of the whole bridge, such as attending a minor scour around an abutment have lead to settlement or collapse of the whole bridge. Waterways are not being cleaned and shrubs and trees growing around the structures are not cleared. Most of the steel structures are getting rusted as regular painting is not carried out.

Revival Bridge Yard at Pugu

The Bridge Yard at Pugu was established in late 1980s to strengthen the bridges rehabilitation programs and readiness to attend any emergencies such as bridge failure or wash away. This bridge yard was also facilitated for routine and periodic maintenance. At the time of concessioning RITES didn't take over this section so it has been idle under RAHCO. RAHCO is currently making rehabilitation but it has no establishment for it. As routine maintenance is done by TRL, part or full of its capacity should be utilized by TRL for routine and periodic maintenance of bridges. With the revival of the bridge section regular inspection and routine maintenance will be brought back into effective practice at all levels.

4.2.2.4 Track Maintenance

A Track maintenance organization

Track Maintenance is basically manual with few cases when track tamping and ballast regulating machines are used. Prior to concessioning of the railway operations to RITES in 2007 the former TRC had organized track maintenance gangs at every 8 – 10km of an average 8 staff composed of one gang leader, a key man and six gang men stationed mainly at a gang camp built and maintained by TRC.

On taking over, RITES abandoned this method which has been in practice since colonial era and introduced Mobile Maintenance Gangs (MMG) each consisting of 15 – 20 staff for a section of 60 – 100km. They started with Tabora - Kigoma and Tabora - Mwanza lines due to limited number of

trolleys they found available before they could procure new ones. The main reason to start the MMG was to:

- Reduce the number of staff
- Avoid costs related to gang camps such maintenance of gang houses, supply of water, schooling of children, non availability of shopping and other facilities such as health centres.

This method has failed and those sections have become worse than ever before. This is due to poor availability and reliability of the trolleys, non specified times to allow the trolleys to enter sections in time when there are trains, increased workload to staff from approx. 1.2km per gangman to between 4 – 6km/person. As a result since year 2007 when this method started no proper maintenance has been carried to date.

B Track maintenance Standards

According to the concession agreement between TRL and RAHCO, TRL is charged with the responsibility of routine and periodic maintenance of the track and structures. TRL bases its maintenance practices on the Engineering Manual Vol 1 – Technical Instruction, 1962. This is an old manual based on manual maintenance without elaborate construction and maintenance standards.

In 1999 TRC developed a new engineering manual based on more current technologies and practices, but it did not come into force to date. This manual is more detailed and had set construction and maintenance standards which would have been difficult to achieve without substantial investments such as track renewal and upgrade in maintenance practice including mechanization.

In 2010, SUMATRA commissioned a study to establish Railway Safety Standards for Infrastructure and Rolling Stock with the following salient features:

- They cover principles, specifications and data pertaining to design and construction of safe railway lines for designed capacity and speed
- They cover soil reconnaissance procedures for new and operating railway lines and design requirements for stable embankments and cuttings
- They cover specifications for the engineering properties, manufacture and quality assurance procedures for the track structure elements (components)
- They cover recommended procedures for laying jointed track and continuously welded track including details pertaining to rail welding procedures by using electric Flash Butt and Thermite welding.
- They provide guidelines for the inspection of the track geometry and structure, rails, bridges and culverts, tunnels and other line side structures.
- They provide recommended practices for maintenance of the track geometry, track structure, rails, bridges, culverts and tunnels.

The standards set by SUMATRA would supersede all the other standards set but to date they have not yet come into force but they are being used by the SUMATRA as guidelines in their inspections of the railways. In advance of the Sumatra standards coming into effect, TRL is governed by the Engineering Manual Vol 1 – Technical Instruction, 1962.

C Trolleys and Track Maintenance Machines

RAHCO/ TRL own and operate a fleet of trolleys and equipment necessary for inspection and track maintenance. The equipment is very old as most was procured in early 1980s. Reliability is low as they have not received the required periodic maintenance and lack of spare parts. Very few of the equipment should be considered for rehabilitation.

	Total Requirement	Existing	Reliable	Overstretched
Inspection Trolley (around 9seats)	25	14	1	13
Heavy duty trolley (can pull one wagon) with crane	21	8	1	7
Power Gang Trolley and equivalent (carry up to 30 gang staff with tools and material trailer.	28	15	1	14
Tamping machines	4	4	0	4
Ballast regulators	4	3	0	3
Rail Drilling	24	8	0	8
Rail Cutting	24	9	0	9
Timber drilling	24	0	0	0
Power saw (timber)	24	0	0	0
Coach screw	24	0	0	0

D Track maintenance problems

Track materials

Except for the recently laid 80lb materials and some sections with 60lb the other track materials are old and worn out. The 52.12 lb/yd material on the track with more than 100 years and having experienced several derailments are permanently deformed and cannot be maintained to the right track parameters. There is a wide range of fittings that have been hit in derailments and are no longer holding the sleepers and the rails in a tight condition. For a long time supply of fittings is inadequate.

There are no 60lb replacement materials in cases of accidents. Loop lines are being up rooted in some stations to get accident replacement materials.

Formation and drainage

As discussed above the line traverses in many places with bad formation of unstable black cotton soil. These areas are difficult to maintain due to sinking and loss of ballast, shifting of track and disturbed track parameters with passage of trains needing closer monitoring and frequent attendance of slacks. Common problems noticed were:

- The embankment in several places has lost its standard profile by narrowing and cannot hold the ballast in place due to erosion, passage and crossing of cattle, pedestrians and cyclists.
- Due to insufficient and improper maintenance the catch water drains and longitudinal drains have silted and no longer exist. This is a threat to wash away and silting of ballast and the track.
- Overgrown with grass and shrubs.

Staff

Major maintenance problems are associated with low productivity of the staff. This is further discussed in section 4.2.2.5.

Maintenance Equipment and tools

All the heavy track maintenance equipment i.e. tamping and the ballast regulators are defective as indicated above with low possibility to be economically rehabilitated. The current contractor doing the 89km relaying between Kitaraka and Malongwe has tried to repair one tamping machine and one ballast regulator without noticeable results.

Only few portable small track equipments are working and the few available have to be shared making the maintenance to be very difficult and time taking.

Due to financial constraints there is serious shortage of manual track tools such as beaters, ballast forks, crowbars etc.

Ballast Deficiency

Except for the 80 lb section relayed recently there is serious shortage of ballast in all sections and some sections such as Luiche - Kigoma have just earth ballast. Also in some sections the ballast is dirty, needing screening. With the shortage of ballast it becomes very difficult to maintain the track parameters.

E Various

Buildings and Depots

Railways own and maintain a large number of buildings for its operations including stations buildings, goods sheds, workshops, offices and residential houses for key operational staff such as gang camps and wayside stations staff. At one time, TRC had internal maintenance gang in every district under Inspector of Works for maintenance of buildings and associated services, pavements and platforms, bridges and culverts and water supply. These groups effectively no longer exist after massive retrenchment. Due to poor allocation of funds no alternative method of carrying out the works such as engagement of contractors for routine maintenance has been put in place. For more than two decades the buildings have not been getting regular and periodic maintenance and most of them are in pathetic condition.

Figure 43 One of the abandoned and vandalised gang camp along central line Pugu -Mpiji

Figure 44 One of the old stations along central line - Kaliua

Sleeper pressing plant

Following frequent derailments, many sleepers have been dented and removed from the track. The reserve stock of sleepers for replacement has been diminishing and in some occasions second lines of some stations were uprooted to get materials for replacement when a derailment occurred in the main line.

The dented sleepers are collected and sent to the sleeper pressing plant located at Pugu in Dar es Salaam.

The plant is facilitated to press 56.12, 60 and 80lb/yd sleepers but the productivity is almost nil for the following reasons:

- The experienced staff were laid off at the time of privatization to RITES
- Frequent power cut off
- Non collection and supply of sleepers from the districts due to non availability of engineering trains
- Poor service to the plant and non availability of repair parts

4.2.2.5 Track maintenance staff

TRC track maintenance organization of gang camps had an establishment of about 3500 staff in civil engineering department. The number has been gradually reduced to pave way for privatization since the TRC was specified in 1997. New recruitment to replace any manpower wastage was stopped and there was massive retrenchment in 2004 and 2007 which reduced the staff to around 2,120. As mentioned above when RITES took over they abandoned the fixed gang system and adopted the MMG (Mobile Maintenance Gang) system.

With introduction of MMG and closure of Korogwe to Arusha, Kahe – Taveta, Mikumi - Kidatu and Manyoni – Singida lines the current staff position was further reduced to the current 1,550. During this process many experienced staff at all levels from engineers to gangmen were retrenched and the current staff position cannot maintain the track to the required standards.

The MMG system did not work well due to insufficient equipment. Less than 50% of the trolleys allocated to the MMG are available and the remaining ones are not reliable.

After RITES left, TRL has continued to maintain stationed maintenance gangs activities between DSM and Tabora but on the sections from Tabora to Kigoma and Tabora to Mwanza, MMG is still adopted.

Furthermore, none of the track maintenance machines, i.e., 4 units of ballast tamping machines and 4 units of ballast regulators, are presently useable.

As mentioned in the above section, many of experienced track maintenance staffs were discharged by RITES, and it seems difficult to re-assemble those staff. Therefore, it is urgently required to re-organize track maintenance groups in order to keep track condition in good status.

In discussion with engineering staff, it is clearly noted that the poor condition of the track is associated to the human input. Generally there has been poor productivity from the staff since concessioning mainly due to the following reasons:

- There has been a transition period from the public owned corporation to a private employer and then back to public owned company. There was no trust built and effective communication between the local workers and the concessionaire and at that period the staff were demoralized and to date it has been difficult to reverse the situation.

- In the process of retrenchment and introduction of new maintenance organization most of the tools were lost/stolen and the gang camps were vandalized. When it was decided to reverse and to reactivate the old gang system between Dar es Salaam and Tabora, the gang camps were inhabitable. So most of the staff are staying in the nearest stations or in the village. They are therefore subjected to walking long distance to and from their work site. This situation makes it difficult to organize, not to mention the lack of proper and adequate tools.

- There were mass transfers of staff from Tanga line, Link line and other branch lines to the central line to fill in the gang posts left by retrenched staff. These have been subjected to a new environment without proper housing and leaving their families and property behind. They are highly de-motivated and they are forever formulating every reason to go back.

- After the massive retrenchment there is inadequate number of employees in the middle and senior operating staff and therefore there is a big number of retired staff under contract. Sooner or later there could well be a serious scarcity of experienced railway experts. Massive retrenchment may be a criterion for "good management", but one cannot retrench the staff needed in manual maintenance (estimated for TR/TRL at 0.8 men per km) without **massive** investment in mechanized maintenance and transport related equipment.

- At the moment the Tabora Railway Training College is closed for permanent way courses and no training at all levels.

- Other problems related to human input are:
  - Insufficient number
  - Poor quality of staff. Since there has been no recruitment for the last 15 years most of the gangmen are old and tired to carry out the strenuous manual work
  - No succession plans. Once experienced engineers, inspectors down to gang leaders leave service no new recruitment is being done.
  - Poor motivation – low salaries, poor water supplies due to non provision of watering trains, low accessibility to important social services such as schools and health centres.
  - Absenteeism for many reasons is very high. Most of the gangs found working in the line had up to more than 50% of staff absent with reasons of leave, sickness, shopping/banking, permissions but in larger percentage is malingering.
  - Very poor housing condition. Most of the gangs are in pathetic condition and some gangers have abandoned them to live in neighbouring villages.

4.2.2.6 Conclusions and recommendations

A Bridges and Culverts

Regular inspection and routine maintenance has to be brought back into effective practice at all levels. This can be done by re-establishment of the Bridge section and reactivation of the now dormant Bridge yard.

There are a total of 32 "E" rated bridges and culverts on the Central and Mwanza Lines, these structures should be replaced prior to any significant increase in the use of the railway, and immediately where the structural condition precludes further usage.

Upgrading to 15 Axle Load

RAHCO is engaging a consultant to update the current bridge register, analyse and re-evaluate the residual axle load of the existing bridges with intention to upgrade them to a minimum of 15t axle load in the Central corridor within a short term period of 5 years. This is intended to enable purchase of higher axle load locomotives and better utilisation of the installed rail capacity and improved rail operations.

B Permanent Way

Upgrading of track

The immediate and short term strategy of Railways is to bring back the confidence of the customers and the lost traffic to other modes. The immediate and short term moves should include:

- Relaying the 56 lb/yd rail section with 80lb material
- Removal of temporary and permanent speed restrictions
- Replacement of old 56.12 and 60lb/yd yard turnouts with 80lb/yd turnouts
- Removal and replacement of all the rotten timber sleepers in turnouts, bridges and in main lines.

Tabora - Kigoma and Tabora - Mwanza Lines

Immediate action is needed to intervene the continuous deterioration of permanent way particularly on the Tabora - Kigoma and Tabora - Mwanza lines where the Mobile Maintenance Gangs (MMG) started by RITES have miserably failed due to poor availability of trolleys. This can be done by re-engagement of the stationed gang camps but since many of the houses provided for stationed maintenance gangs were abandoned, it is difficult to return to the same system which operated before RITES. It is therefore required to set up a new track maintenance system utilizing ballast tamping machines and ballast regulators. The existing ones may be uneconomical to rehabilitate so arrangement to purchase new ones in the short term period should be arranged.

Contracting out to local contractors

For many years since colonial era maintenance of track has been done in-house. Introduction of private qualified contractors for track maintenance in branch lines such as Mpanda and Link line have shown successful results i.e.:

- Better maintenance hence reduction of number and severity of accidents
- Improved travel times
- Reduced manpower management costs
- Overall reduced maintenance costs

Staff

The age profile of staff is at the average of 50 years at all levels. This means from five to ten years to come there will be serious shortage of railway experienced staff.

Intensive recruitment and training of permanent way supervision staff i.e. permanent way engineers, permanent way inspectors and gang leaders is required. This will be in line with re-activating the permanent way courses at Railway Training College Tabora. Skills improvement and training programme for staff at all fields and levels is a necessary input at the moment to manage the likely huge investments to come in the near future.

Permanent Way materials

There is shortage of 60lb materials. In the efforts to upgrade the Central line with 80lb materials, part of the 60 lb stretches should be relayed immediately preferably DSM – Pugu so that the retrieved materials are kept for accident relief and to restore the uprooted loop lines in some stations. Many fittings especially Pandrol clips have been stolen and clips and bolts missing or damaged in derailments. These have to be purchased as an immediate requirement.

Buildings

The maintenance section for buildings under the districts was dissolved. A programme to rehabilitate the station buildings, workshops and gang camps should be started by contracting out to local contractors.

Maintenance Equipment

The track maintenance is not carried out properly or delayed due to lack of equipment. The tools and small track machines should be procured immediately while the heavy track machines could be purchased in the short and medium terms. Inspection and gang trolleys are required immediately so the Mobile maintenance Gangs MMG can be effectively productive.

4.2.3 Rolling stock

4.2.3.1 Preliminary remarks

The pressing capacity constraint at the railway is availability and reliability of locomotives.

Only 6 to 10 of TRL mainline locomotive fleet of 44 units are available for freight service every day. Due to their frequent failures the turn round of trains has increased and therefore TRL is just able to provide only minimum of services, well below commercial requirements. The serviceable number of commercial wagons available for traffic has also dropped from 1364 to only 613. This small fleet of wagons is far underutilized due to unavailability and reliability of locomotives. The confidence of customers has dropped to the level of resorting to road alternatives. The immediate action required is to save the existing railway from total collapse mainly focusing at improving the status of locomotives either by leasing, re-manufacturing of non-operational locos and purchase of new locos.

4.2.3.2 Introduction

TRL is holding a fleet of locomotives of different capacities for main line, branch lines and shunting. All locomotives are at a minimum of 20 years old, with most between 30 and 40 years old. These locomotives have not been getting the proper maintenance and are excessively overdue for general overhaul mainly due to financial constraints.

TRL is in taking major immediate steps to correct the situation from funds provided by the government.

- Ordering of vital spare parts to revive the grounded locomotives. Some of the spare parts have arrived. This will keep the serviceable fleet running
- Re-manufacturing of 8 main line 88xx class Canadian Diesel Electric locomotives. The contract had been signed with a Malaysian company and the project started in May 2013. First locomotive is programmed to roll out by January 2014 and thereafter one locomotive each month. Re-manufacturing involves stripping the locomotive to the mainframe and bare bogie frames, followed by installation of new or reconditioned equipment and control systems above the main frame, as well as fitting new traction motors and bogie fittings on the bogie frames. The result is a locomotive which is close to a new one that can add nearly 20 to 30 years to the life of the existing locomotive.
- Has ordered 13 No mainline locomotives expected to start arriving by November 2014
- Signed a contract for 274 commercial freight wagons.
- Ordered 22 No passenger coaches form Korea expected to arrive by April 2014.

Figure 45 Re-manufacturing of main line 88xx class Canadian Diesel Electric locomotives at the Morogoro locomotive workshop

All the above have been ordered adopting the old existing standards with maximum axle load of 13.7 tons for locomotives and 14.2 tons for freight wagons.

There is a World Bank project named TIRP – Tanzania Intermodal Railway Project aimed to introduce special 2No trains per week from Dar es Salaam to Isaka. Negotiation is going on particularly to resolve and agree on the standards to be adopted and their cost implications. These standards include axle load, length of the train, speed, standard dimensions, etc. This is a pilot project and it is believed that if it succeeds more investors will be attracted.

4.2.3.3 Type of Rolling Stock and Axle Load

In the short and medium plans many questions arise as to whether the planned upgrading of track and bridges to 15 ton axle load, procurement of the locomotives and wagons and refurbishment of the old 88xx class is the right course of action to make TRL competitive compared to other modes of transport and the Northern Corridor. It should be taken into account that there are plans to upgrade the Mombasa – Kampala – Kigali to a modern railway by 2018 according in particular to the EAC Infrastructure Regional Summit held in Mombasa August 28 2013 involving Kenya, Uganda and Rwanda. In order that the Central corridor competes with the Northern Corridor, it has to improve the quality of its service which will also need a modern railway.

The current actions being taken by RAHCO and TRL on upgrading to 15 tons and refurbishment of locomotives and procurement of rolling stock has been explained as hereunder:

- Rehabilitation of the 88xx was the only immediate action to save the railway from total collapse after failing to get locos for leasing which will meet the existing permissible axle load of 13.7 tons. Ordering new ones takes time and with the limiting specifications locomotives are tailor made and this may take up to two years.

- 15 ton axle load is certainly very low. Consideration that more than 75% of all bridges (2350 system wise) are below 15 tons design axle load, in the short to medium terms it will be very difficult to rehabilitate them to axle loads greater than 18 tons. With the difficulty of getting locos from the ready market with axle load less than 15 tons (but easier to get higher than 15t also with higher horsepower) engineers thought that the same existing bridges and culverts with little investment could carry 15 tons. This comes from the argument that the same wagons for years have been overloaded to more than 15 tons axle load. It is also believed that the German built bridges could have been over designed as surprisingly despite of the age most of them are visibly sound. RAHCO is engaging a consultant to re-assess all the bridges and upgrade to 15 tons. This is for the bridges but also there are long stretches of 60lb rails which permits maximum 15 tons axle load.
- The RAHCO policy is that any new bridge is designed for 25t axle load.

Massive investment is required to raise the axle load to higher than 20 tons. This cannot be avoided in the medium and long term plans which may include heavier rails, concrete sleepers, realignment to smoother curves and gradients, higher speeds, and change to standard gauge, all in all determined by the level of traffic.

4.2.3.4 Inventory of rolling stock

A Current situation

Locomotives

The current situation of locomotives is as here under.

Abbreviations: DE – Diesel, DH - Diesel Hydraulic

Locomotive Holding

Class, Wheel Arrangement & type	Year Purchased	Holding (NO)	Locomotive Weight (Tons)	Eng. Horse Power	Max. Tractive Effort (KN)	Use
89xx (CO-CO) DE	1992/93	9	74	2130	252	Main line
88xx (1CO-CO1) DE	1972	20	103.5	2000	234.5	
88xx (1CO-CO1) DE	1979	15	103.5	2000	234.5	
73xx (CO-CO) DE	1975/75	15	72	1400	239.5	
65xx (BO-BO) DH	1991/92	4	38.4	760	124	Branch line/ shunting
64xx (BO-BO) DH	1978/78	24	38.6	760	124	
37xx (C) DH	1985	5	36.2	413	120	Shunting
36xx (C) DE	1979	17	36.2	328	107.9	

Locomotive condition

Class	In Service	Stopped For Overhaul/ Repair	To Consider For Scrapping	For Rehab	Total
89	2	3*	1	3	9
88	14	2*	6	13	35
73	8	2*	5	0	15
65	2	0	0	2	4
64	5	2	10	7	24
37	3	0	0	2	5
36	1	0	2	14	17
35	1	0	0	3	4
	36	9	22	44	111
* 8906, 8908, 8909, 8825, 8818 to be rehabilitated by government funds. * 7318 and 7320 to be overhauled by funds from a private transporter					

Wagons

TRL has a total fleet of 1,364 wagons, but 719 of these wagons have been immobilized as a result of defects, most of which are age related and vandalism. The current available fleet is 638 wagons. Nearly one third of the total fleet is older than 30 years, while more than half are aged between 25 and 30 years. Only 330 of the 719 defective wagons are considered suitable for economic repair.

Code	Type	Serviceable		For Rehab	In Uganda	Total
		Running	Sick			
CGBW	Covered goods bogie	54	7	171	3	235
CLB	Covered large bogie	189	12	218	16	435
MGB	Motor goods bogie	6	0	6	0	12
HLB	Open high bogie	8	0	55	0	63
HLBC	Open high (cont)	99	3	67	0	169
CCB	Container car bogie	41	2	14	0	57
CCB	Container car bogie	57	3	33	0	93
LSB	Low side bogie large	11	0	5	0	16
LSBC	Container car bogie	10	0	5	0	15

LSBL	Low side bogie large	7	0	4	0	11
CWB	Cattle wagon bogie	4	0	35	0	39
DMB	Diesel molasses bogie	0	0	1	0	1
JFBL	Jet Fuel Bogie	8	0	5	0	13
LGB	Liquid Gas Bogie	0	0	5	0	5
PTB	Petrol Tank Bogie	72	3	84	0	I59
CPHB	Open phosphate hopper bogie	17	0	24	0	41
Total		**583**	**30**	**732**	**19**	**1364**

Passenger coaches

Commuter/ long distance

Class	Type	Running	Sick	Gr/Rehab	Tot. Holding
TCB	Third Class Bogie	35	0	22	57
SCB	Second Class Bogie	0	0	22	22
FCB	First Class Bogie	2	0	8	10
RCB	Second Seating Bogie	0	0	5	5
SSB	Restaurant Car Bogie	0	0	4	4
BVB	Brake Van Bogie	4	0	5	9
Total		**41**	**0**	**66**	**107**

B Future evolutions (situation expected in 2015)

There is no final standards document apart from the existing ones given by RAHCO for axle load and other standards of the infrastructure to be adopted by operators when acquiring new equipment.

The government has a program aiming at faster rate of development and one of the sectors set for priority investment is Railways. This project named Big Results Now (BRN) aims at annual transportation of 3 million tons by TRL at the end of year 2015. This means massive investment in upgrading the infrastructure and purchase of new locomotives and wagons.

To achieve the targeted traffic, purchase of new 54 locomotives, 1950 wagons and upgrading the infrastructure to 15 tons axle load would be required.

4.2.3.5 Current situation

A Rolling stock maintenance organization

Dar Es Salaam Workshops

The Workshops were built during the East African Railways and Harbours era for the purpose of overhauling steam locomotives, wagons and coaches as well as manufacturing spare parts. Some of the equipment and machinery installed for supporting maintenance have been renewed but some are still working giving rather poor service. These workshops are currently used for wagons and coaches maintenance only.

Morogoro Locomotive Workshops

The workshop was commissioned in 1982. Most of the equipment and machinery installed in the workshops require overhauls to give satisfactory service. Activities carried out in the workshops are:-

- Overhaul of all main line, branch line and shunting locomotives
- Overhaul of major components used in the workshops and for maintenance depots outside Morogoro e.g. compressor, turbocharger, governor, fuel injection equipment, traction and auxiliary machines etc.
- Rehabilitation or accident repair of locomotives.

Locomotive Maintenance Activities at Morogoro, Tabora and Gerezani

The Depots are responsible for carrying out running maintenance services to locomotives based in their districts normally involving inspections, changing of wearing parts and lubrication and fuelling facilities. The Depots are also responsible for turn round (or trip) inspection of locomotives on trains terminating or passing through (normally) after 800 kilometres of running.

Wagon Maintenance Depots

The Depots are located within running districts at major train starting and termination stations. These are located at Ilala, Wharf (Port), Dar es Salaam station, Dodoma, Tanga, Tabora, Kigoma, and Mwanza.

They are responsible for the following functions:-

- B-Examination for wagons and coaches. This is a medium overhaul and involves overhaul of running gear i.e. bogies and wheel sets, overhaul of brake cylinder and brake test. It is done at yearly interval for wagons and six monthly interval for coaches.
- A-Examination for coaches done on monthly basis. Examination of incoming and outgoing trains. Each incoming train is brake tested and examined for any defects to wagons which have developed enroute before being marshalled for the next train. Prior to departure, the train is examined and brake tested to ensure that it will arrive at the next destination safely.
- Repair of wagons found defective and detached from trains within district.
- Attending line emergencies (accidents) within district.

A small gang of wagon fitters are stationed at Manyoni station for checking down trains due to steep gradient.

B Rolling stock maintenance problems

Locomotives

- Extensive vandalism of control and power cables.
- Vandalism of electrical control equipment
- Vandalism of conduits and air pipes

- Many damaged engine blocks and crankshafts of 88, 64, and 89 class locomotives due to engine failure and wear on the main bearing bore and cavitation.
- Many locomotives are missing radiators
- All 88 class axle journals of traction motor suspension bearings have reached condemning size
- Failure of all main generators of old series 88 class due to low insulation and short circuits.
- Shortage of 88, 89, and 73 class traction motors due to frequent failures
- No alternator for new series 88 class and only two can be assembled for 89 class

Wagons

- Extensive corrosion of the coach side panels especially British built coaches
- Missing air brake components e.g. brake regulators, distributors and mounting brackets pull rods, hand brake shafts and brake cylinders on some coaches in DSM
- Missing electrical generation equipment
- Vandalized lighting system with loss of fittings e.g. chokes and inverters.
- Leaking water piping system and overhead water tanks
- Worn out seat and bed covers
- Worn out gangways
- Worn out interior panels of upper class coaches
- Worn out floor cover
- Missing window frames and worn out glass rubber seals
- Heavy and light accident damage to coach ends.
- Batteries life expired

C Staff

As for the case of other departments, there have been massive retrenchments and there is shortage of staff. The situation is not critically felt. Most of the staff are underutilized as most of the equipment are grounded due to lack of spare parts and rehabilitation funds.

D Conclusions and recommendations

- The core problem with the railway at the moment is poor availability and reliability of rolling stock. The short and long term plans should focus on the sustainable availability, proper management, maintenance and utilisation of the rolling stock which are in the process of procurement.

- Recruitment and training of key staff taking into account that the average age is about 50 years.

- Outsourcing some of the activities such as Locomotive rebuild, wagon rehabilitation, trimming, painting workshops cleaning services etc.

4.2.4 Operation and traffic

4.2.4.1 Preliminary remarks

In 2003 (six years after El Niño) TRC realized the best performance ever, since her inception in 1978. Infrastructure was what it was, but still did allow to run a railway, maybe not to modern standards, but still leading to satisfactory results. The subsequent downfall was mainly due to completely obsolete motive power and rolling stock, with related loss of customer confidence through insufficient offer and lost reliability. The decline was further speeded up by a regrettable mismanagement by the concessionaire dismissed in year 2011.

4.2.4.2 Current situation

TRL's situation is now precarious. Following the cancellation of the rail concession to RITES, traffic volumes hauled by TRL continued to decline. Traffic that peaked in 2003 at just over 1.5 million tons has since fallen to approximately 250,000 tons in 2011 and down to approximately 200,000 tons in 2012. This year the situation is even worse as by the end of third quarter the loading had not reached 100,000 tons. With 6 to 10 of its mainline locomotive fleet of 44 units available for freight service every day and a system-wide low speed as a result of frequent locomotive failures, TRL is able to provide only the minimum of services, well below commercial requirements. Apart from the very low locomotive/ wagon availability and reliability other issues contributing to the low traffic volumes include the following:

- Service disruptions due to track wash away and floods between Kilosa and Gulwe stations
- High levels of temporary speed restrictions,
- Low staff morale, and
- Serious failure of the concessionaire
- Lack of investment in the railways by Government and Donors in the process of privatization

The combination of these factors has proved to be difficult for TRL management and has led to a situation whereby fuel and labour costs are not currently covered by the revenue. Turnaround times are very high, providing minimal comfort to customers. As a result of the poor service, many customers have resorted to purchasing truck fleets to fill the gap left by the lack of suitable rail service. This has led to higher transport costs and a further deterioration of the road infrastructure.

Operations between Makutopora and Aghondi along Rift valley

Operations between Tabora and Dodoma are highly affected by the persistent gradient between Makutopora and Aghondi stations a distance of 64 which necessitates special operation of trains running:

- Provision of additional locomotive as a banker to assist the trains to cross this section without tripping the train load.
- Once a train enters section from Manyoni or from Saranda no any other train is allowed to be moving between these stations until it clears the mainline and stopped safely in the intermediate station. This is a major operation bottleneck and it reduces the overall line capacity.

Figure 46 Railway section between Makutopora and Aghondi

Alternative solutions are:

- Re-alignment of the line to reduce the gradients and increase curves radius
- Operating with stronger locomotives. This will necessitate upgrading of the infrastructure to higher axle load (rails and bridges) a situation which will need to be included in the overall upgrading of the central line between DSM to TBR.

Either of the above solution needs huge investments.

Rail Tracker

Rail Tracker ACIS is the computerized system wise data base for tracking locomotives and wagons positions and movements, loading and other important operation features such as fuel position and consumption by locomotives. This system was installed in the former TRC in late 1990s. It played an important role in the successful performance of TRC in that time which peaked in 2003 by transporting 1.5 million tons.

The system is still operating at minimum levels mainly due to aging of equipment particularly the computers which are obsolete. All the upcountry centres are not working but the data is being sent to headquarters by the internal communications system and fed to the working computers. The output information can only be availed from the headquarters.

The system needs immediate upgrade and TRL is already doing some consultations to upgrade the system.

Transit Traffic

The traffic to Uganda via Lake Victoria and to Burundi and DRC via Lake Tanganyika depended significantly on the reliability of both the port of Dar es Salaam and the railway which links them to Mwanza and Kigoma port respectively. The decline of the railway has either forced the transit customers to operate their own trucking fleets or outsource this to other service providers. The shortage and

reliability of the wagon ferries in the Lake Victoria is also another problem due to longer delivery time to deliver goods and unprofitable long turn round of wagons.

Upgrade of handling facilities at the ports and availability of container carrier vessels in the lakes is needed for the unquestionable and sure growth of containerization.

The proposed Isaka - Kigali link and also branching to Burundi, which started with the feasibility study almost 10 years ago, has a rather slow progress. The detailed feasibility study is almost completed and final submission is expected to be in November 2013. A transaction adviser is being engaged to manage the process of its implementation most likely Public Private Partnership (PPP).

4.2.5 Signaling, telecommunications, train control

4.2.5.1 Preliminary remarks

The control of trains into and out of railway stations and block sections safely, is achieved through the use of 3 groups of railway operating equipment.

- Communication equipment allowing Controller-to-station, controller to train driver and station master-to train driver communication. Various systems can be used to facilitate this including the train dispatching system described under Telecommunications, radio and cab signaling.
- Block signaling systems that ensure train safety when trains are in a block section.
- Yard signaling systems that control the movement of trains into and out of stations safely. Yard signals can be physical structures located in station limits or virtual signals visible only to control centres and train drivers.

  In order to guarantee safe train operations it is usual to interlock block signaling and yard signaling systems

In the Tanzania Railways, use is made of signaling systems as follows

- Paper Line Clear (PLC) system
- Token Block System
- Semaphore Signaling system (Lower quadrant)

4.2.5.2 Current situation

A Signaling

There is almost no signaling left on the TRL network. Previously, there used to be an old system of semaphore signals at all stations, but the components of this system, including pulleys, masts and wires were stolen.

Figure 47 Non functioning semaphore signal

Until the year 2002, the Dar es Salaam - Ngerengere section was installed with a Tokenless Block system and the stations had colour light signals (CLS) which were interlocked with the block system. The system suffered extensive vandalism in 2002 and 2003 and therefore no longer works.

Today, there is no signaling system to assist station masters (SM's) in controlling trains. A system of written train orders backed up by telephone communication between SMs at different stations is the only form of safe-working in use currently. On the TRL network, points are controlled by SMs.

In the Dar es Salaam - Ngerengere section where colour light signals have been vandalized, efforts are currently in hand to restore semaphore signals but with more secure installations of the signal wires installed underground to avoid theft and vandalism. Hopefully the semaphore signal all over the system will be rehabilitated in the same manner.

From Dar es Salaam to Dodoma there is no communication with trains, but between Dodoma and Tabora, station masters can communicate with trains via VHF radio.

4.2.5.4 Telecommunication

TRL back bone telecommunication transmission system consists of buried copper cables, buried fiber optics cables and VHF Radio network as summarised in the table below.

Table 4-2: Telecommunication transmission systems along the Central Corridor

Type	Location	Service rendered	Remarks
buried copper cables	DSM - DOM	Block signaling (Paper Line Clear) voice communication services between adjacent stations DSM NGR and Token Block working communication services NGR-MOR .	
buried fiber optic cables	DSM - TBR	Train dispatching communication services via Drop/Insert stations' multiplexers and copper cable Administrative/management phone service trunks DSM-MOR-DOM-TBR Operational data transmission over inter-PABX dialling extensions Telephone exchange access in the form of Off-Premises Extensions(OPX's) on DSM or MOR PABX's, by way stations from the Drop/Insert station facilities Extension of train dispatching communication services from Drop/Insert stations to adjacent station up and down line. Station-to-Station(STS)voice communication Control-to-Station (CTS) dial up phone communication services Off-Premises Extensions (OPX's) linked to either the DOM or TBR PABX's	For DOM – TBR, VHF Radio System facilitating semi-duplex voice communication is provided as follows: 1. Central Dispatcher-to-Train Driver communication 2. Station Master-to-Train driver and vice versa (along track adjacent to and in station) 3. Station master-to-Maintenance gangs and vice versa (along track adjacent to and in station) 4.Station Master-to-Station Crew (hand-held radio around station yard) 5.Among Maintenance gangs in block sections (hand-held radios). 6.Operational Frequencies: Transmit-148.4-148.950 MHz Receive: 153.4 - 153.950 MHz

VHF Radio network	TBR – KGM and TBR - MZA	Station-to-Station (STS) voice communication only	

4.2.5.5 Problems

It will be noted from the foregoing that there is a big shortage of spare parts for maintaining signaling and telecommunications systems and once installed how to secure them against theft and vandalism. In parallel with this, there is also a shortage of vital maintenance tools and test equipment for use in workshops and on line.

Buried copper cables DSM - DOM

- Rampant Copper (Cu) cable thefts experienced in spots where cable is exposed such as near culverts, on bridges and spots that suffer flooding damage.
- Not possible to use cable for token block signaling circuit services DSM-NGR, because token block instruments were moved to KOR-MOS section, when the vandalized colour light signal system was installed.
- Rampant vandalism on plug-in-points (PIP's) in section
- Current use of cable to facilitate OPS services for Paper Line Clear block working, would compromise train safety especially under heavy traffic conditions

.

Buried fiber optic cables DSM - TBR

DSM – DOM

- Transmission equipment obsolete. System suppliers no longer manufacture spares for it
- Transmission management system out of order-faulty power supply module.
- Some spares available in market but TRL has financial constraints
- Subscribers' cards in primary Multiplex Interface problematic.
- Problems also experienced with control unit and power supply cards.
- Invasion by bees and geckos into equipment enclosures experienced at PJI, KIO and MID stations' equipment rooms.

DOM - TBR

Operational with virtually no problem. Few cable theft attempts since installation.

VHF Radio network

- Does not offer dispatcher-to-station master and dispatcher-to-train driver communication.
- Does not offer station master-to-permanent way maintenance staff communication facilities.
- System hit by high risk communication systems (VHF radio) that can sometimes transmit and receive voice signals to and from two block sections away at operational frequency.
- System is highly prone to human errors and careless operation can cause train collisions.
- System also requires that train stop at stations to receive and exchange written instructions.
- No spares because of lack of funds.

4.2.5.6 Staff

TRL had trained staff engineers, inspectors and artisans to manage the signals and telecommunication installation. From retrenchments and normal wastage, without recruitment since TRL was specified in 1997, there is shortage of staff at all levels. Within 10 years, the Signaling and telecommunications department will have lost about two thirds of its top technically qualified staff and artisans due to attrition.

4.2.5.7 Conclusions and recommendations

From the foregoing, it is clear that the Tanzania Railways network's operational communication and signaling services are hard hit by vandalism and theft. In particular, any use of copper-based or steel-based infrastructure in future will be a waste of much needed resources unless special attention is given to its protection against vandals.

The relatively new Dodoma-Tabora telecommunications system which has been designed with a goal of effectively fighting vandalism and theft shows that it is possible to win the war in telecommunications at least.

In signaling, a big number of semaphore signals suffered parts theft country-wide, while the colour light signaling system and associated token less block system DSM NGR suffered from vandalism, rendering it inoperable. The token block systems that operated well in lines with open wire transmission systems were widely affected by wire thefts. In addition, existing systems are difficult to maintain due to lack of funds for buying spares, while some of the systems are obsolete.

If the budget were available, the best option would be to install a GPS controlled block. Such a system is currently operating in Zimbabwe. This system is cheap, effective, and not subject to pilferage.

With the serious manpower wastage in the near future it is recommended to re-introduce training classes for short courses at the Tanzania Railways Training Institute for Signals and Telecoms staff. Such training should be undertaken using the most qualified senior staff in the department so as to transfer their skills to the less qualified targeting the young artisans and technicians.

4.2.6 ICD(s) Inland Container Depots and Marine Interface

4.2.6.1 Preliminary remarks

ICD is a common user facility with public authority status equipped with fixed installations and offering services for handling and temporary storage of import/export laden and empty containers carried under customs control and with Customs and other agencies competent to clear goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export. Transhipment of cargo can also take place from such stations.

With the growing use of containerization of imported and export goods TRC/RAHCO has opened four ICD with rail sidings for local and neighbouring countries bound cargo connected to the Central Corridor:

- Ilala in Dar es salaam
- Isaka
- Shinyanga region along Mwanza line
- Mwanza

With the current low level of traffic with exception of Ilala ICD which has minimum activities, Isaka and Shinyanga ICDs are dormant and the Mwanza ICD has just been completed awaiting handing over.

4.2.6.2 Current situation

A Inland Container Terminals

Isaka

Isaka ICD was constructed in mid 1990s with Belgian assistance to facilitate the growing traffic to and from Rwanda and Burundi. The ICD was very important and busy until concessioning of TRC in 2007.

At the moment the ICD is idle and deserted without any cargo and this is due to reduced operation capacity of railways. Only minimum bulk cargo of Bakhresa (AZAM) mainly cereals brought by rail destined to Rwanda are temporarily handled and stored in the ICD warehouse.

Figure 48: **Isaka ICD**

With the anticipated improvement in the railway on rolling stock and infrastructure in general, traffic studies forecast a substantial growth on traffic. The ICD and the station yard have to be improved to accommodate longer and more trains. Isaka which used to be a small station has developed and still

developing very fast into township after the construction and operation of the ICD. This means additional land is required and reserved for future development to accommodate more and longer loop lines as well as the ICD area. It is high time RAHCO acquires this land, particularly the northern side towards Shinyanga where there is least development.

A substantial land has been allocated for Rwanda Government beside the ICD. Rwanda has fenced that area but no development has been done.

Equipment :

Major equipment at Isaka is the two front end reach stackers. Both of them Fantuzi Italian made are defective with engine problems. Lighter equipment includes forklifts, generators and workshop equipment for plant repairs.

Shinyanga

The ICD at Shinyanga financed by Belgium is now completed but nothing is going on due to low operations capacity of TRL.

The idea of construction of the ICD came from the intention of containerization of cotton for export. Wagons loaded with cotton from Shinyanga were detained for long period at DSM Cotton sheds (which were always full) waiting to be offloaded and containerized for export. The equipment to be deployed in ICD has arrived but retained at Dar es Salaam awaiting sort of operation.

Figure 49: **Shinyanga ICD**

Mwanza ICD

Mwanza ICD also financed by Belgium has been completed and in the stage of handing over by the contractor. The idea of constructing the ICD at Mwanza station yard was to handle containers for local and Uganda bound cargo. The ICD is meant to reduce wagon detention period once the containers arrive at Mwanza in the process of being cleared or being de-staffed.

The equipment to be deployed in ICD has arrived but retained at Dar es Salaam awaiting start of operation.

Figure 50: **Mwanza ICD**

DSM ICDs

Ilala ICD at Dar es Salaam

This ICD is railway owned with railway siding intended to capture container traffic from the port for local destinations and transit to neighbouring countries via rail. The custom bonded part is almost idle as TRL has lost most of its customers. The ICD is handling few containers for MS Bakhresa which are transported by rail to Isaka and other few local destinations.

Other ICDs in Dar es Salaam

Apart from the Ilala ICD there are several ICD recently developed in Dar es Salaam to assist in decongesting the port.

There are 10 ICDs out of the port and 4 ICD for motor vehicles.

Only two of the ICDs i.e. Ms AMI and TICTS Ubungo are served with railway siding. This means all the other sidings depend on road transportation.

B Marine Inter face

Kigoma

A look at the map confirms that the combined railway Kigoma/ Lake Tanganyika is an attractive route for neighbouring countries of Democratic Republic of Congo and Burundi which links to the Dar es Salaam port by the use of Central Line. This route was extensively used since the construction of the line. Despite of the low traffic and Kigoma Port operating far below capacity, a decent revival of the overall route would prove to be profitable and highly competitive.

Kigoma Port was owned and operated by the former TRC and through restructuring process, it is now under the Tanzania Ports Authority as well as other inland ports of Mwanza and Musoma to lake Victoria and Itungi port to lake Nyasa.

Kigoma port is now operating under capacity due to dropping services of TRL.

Beside the falling traffic volume, the operations at the port had the following problems/weaknesses:

- Insufficient equipment
- Dependence on the reliability of one simple gantry for container transhipment
- Reliability of the TRL shunting engines
- Erratic power supply
- Inexistence or insufficiency of container carriers on the lake, with only very limited loading capacity on the decks
- Siltation reducing the depth of the port.

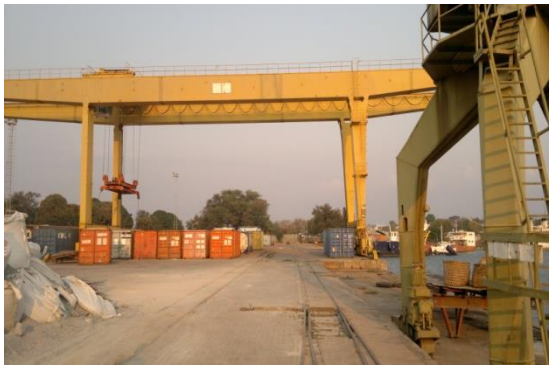


Figure 51: Kigoma Port

Figure 52: Kigoma Port

The rail infrastructure within the port has deteriorated and it is not receiving proper maintenance as the Port authority has no expertise and materials for railway works and has not contracted TRL or someone to carry out such works. Beyond the port area there is TRL triangle for locomotives turn around which necessitates the TRL loco to continuously pass through the port.

With growing traffic forecast, both the TRL yards and the port have to be rehabilitated and work efficiently. TRL station yards have serious maintenance problems due to flooding and huge deposits of sand from the hilly terrain surrounding the Kigoma township and the station. A joint solution with the Kigoma Authorities to this problem is needed as it is highly related to the environmental degradation and human settlement development.

Figure 53: Sand deposit at the entrance to Kigoma station

Figure 54: Blocked culverts at the Kigoma station yard

Kigoma yard and the port area are very small with short lengths of loop lines and limited to substantial expansion by the topographic nature of the area, township development and the lake. The longest uninterrupted loop length within the yard is 289m and is dominantly used for passenger train while within the port the longest loop is 231m. This means major restructuring is required to accommodate longer trains rakes within the TRL yard and the port. A marshalling yard will be required away from the existing preferably between Kigoma and Luiche station. This will need land and RAHCO is advised to start acquiring land ahead of the fast growing Kigoma township.

Mwanza

Mwanza is an important growing urban centre and important link to fast growing economic activities within the lake zone areas and the neighbouring countries of Uganda and Kenya through Lake Victoria where there is a rail link with wagon ferries to Kampala and Kisumu respectively.

Trains are received and marshalled at Mwanza South station and dispatched to Mwanza South Port or Mwanza stations. As for Kigoma Port the Mwanza South Port is operated and maintained by the TPA. The condition of the rail infrastructure is also in pathetic situation taking into account that TPA has no expertise and materials to maintain it. The yard is also affected by floods and sand deposition. The rail link span to the wagon ferry is in good condition. Mwanza South Port has limited area and facilities for container handling. RAHCO through Belgian grant is building a container depot (ICD) at Mwanza station. With the growing traffic forecast, the existing loops lines within Mwanza South station, the Mwanza South port and at Mwanza station will need lengthening to accommodate longer trains, faster marshalling and dispatch.

Figure 55 : Mwanza Port - Offloading from ship to trucks

Figure 56: Rail Link span to wagon ferries

4.2.6.3 Conclusions and recommendations

ICDs

- As it has been observed above the ICDs are practically inoperative mainly due to incapacities facing TRL. With hopeful investment and expected traffic growth, these ICDs will come to full operations and their objectives met. Isaka becoming an important transport node for local and transit goods to Rwanda, Burundi and DRC. RAHCO has to develop plans to expand Isaka station for more and longer loop lines, triangle for locomotive turning and marshalling yard by way of acquiring and reserving land taking into account that Isaka town is growing very fast.
- The idle Shinyanga and Mwanza ICDs could start being utilised by road users by way of allowing private operators.

Kigoma and Mwanza Ports

- The rail infrastructure within the port area is in pathetic situation and the TPA does not have the necessary expertise and materials to maintain and upgrade them. TPA should either enter into agreement with TRL for a maintenance contract or contract out to private contractors.
- There is a serious problem of sand deposition at Kigoma railway station and in the lake. The water depth is becoming smaller and bigger ships cannot dock properly.

A study is required to address the cause of the problem (mainly the environmental degradation) and the remedial measures including dredging.

4.2.7 Planned interventions

4.2.7.1 Railway

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*planned date of finalization*	*qualitative assessment on the impact on system performance of the corridor*
Tanzania Intermodal and Rail Project (TIRP) financed by the World Bank: • Component A: Improvement of Rail Infrastructure - i. Rehabilitation of some railway track sections requiring urgent repairs on the 970 km distance between Dar es Salaam and Isaka - ii. Rehabilitation of weak bridges to increase the capacity to minimum of 15 tons/axle load - iii. Bridge Assessment and Rating - iv. Provision of Permanent solution to "Flood prone Section" of Kilosa-Gulwe • Component B: Rolling Stock - Procurement of train-sets to deliver inter-modal services of block container trains between Dar es Salaam Port and Isaka Terminal at the level key defined indicators of the project • Component C: Development of Isaka Terminal and Dar Port Platform - i. Re-design and civil works to upgrade rail exchanges in Dar es Salaam Port particularly in and around the container deport - ii. The design and civil works to construct rail exchanges in the terminal at Isaka - iii. Purchase of handling equipment for both terminals • Component D: Institutional	Procurement phase	USD 200 million		Improvement in the supply chain performance for containerized exports and imports transiting to/from the port of Dar-es-Salaam and to/from landlocked neighbouring countries. Guarantee a reliable service between Dar-es-Salam and Isaka.

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*planned date of finalization*	*qualitative assessment on the impact on system performance of the corridor*
strengthening and capacity building Setting up an efficient railway structure for long term sustainability of the project key elements by; - i. Assessing current capability - ii. Designing the target organization to support the development of the railway activities on the Central and Mwanza line with priority given to Dar es Salaam-Isaka segment - iii. Capacity building to reach the target				
Immediate measures taken by TRL: • Ordering of vital spare parts to revive the grounded locomotives. • Re-manufacturing of 8 main line 88xx class Canadian Diesel Electric locomotives (On-going) • Ordered 13 No mainline locomotives expected to start arriving by November 2014 • Signed a contract for 274 commercial freight wagons. • Ordered 22 No passenger coaches form Korea expected to arrive by April 2014.	Procurement			
New railway line from Isaka to Kigali, with branch Keza - Musongati	Feasibility study done			Improve the connectivity with the landlocked countries; Lower cost for imported goods; reduced deterioration of road networks

Action	*status: project approved, design phase, construction phase, …*	*estimated cost*	*planned date of finalization*	*qualitative assessment on the impact on system performance of the corridor*
Upgrade to standard gauge of railway Dar es Salaam – Isaka	Feasibility study in 2009	USD 3 million per km in flat terrain and much more in mountainous terrain[210]		Preconditions: extension of berth 13&14, Ilala railway yard[211]
Arusha Line rehabilitation	Concept			
Construction of new line to Bagamoyo New Port	Concept	74 USDm[212]		In parallel with new port construction

[210] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[211] Feasibility Study Upgrade of the Dar es Salaam to Isaka Railway, US Trade and Development Agency, 2009

[212] TICP, AURECON, 2012

4.2.7.2ICDs

Action	*status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Upgrade Isaka dry port by the establishment of new storage space on the Rwandese plot	Concept in progress		Streamline movement of cargo to Rwanda through Tanzania
Kisarawe freight station[213] (see hereafter)	Feasibility stage	Funded by WB	Extended gate of the DES port for container and vehicle traffic destined to or originating from the upcountry and the transit (landlocked) markets to relieve city and port from congestion

Figure 57: Kisarawe Dry Port

4.2.8 Critical barriers to trade

- Poor condition of the track (over-aged and under-designed rails) has led to numerous rail breakages and to imposition of speed restrictions and unpredictable transit times in many sections of the regional network
- Poor availability of rolling stock due to the over-aged fleet and the lack of spare parts because of operating cash flow problems and the lack of proper maintenance.
- No railway access to the landlocked countries: Rwanda and Burundi
- Theft of open wires and poles in virtually all the open wire line territory leading to operation in the "Total Failure of Communication" mode which is time consuming and potentially dangerous
- Temporary line closures due to train accidents and wash-aways.

[213] TICP, AURECON, 2012

4.3 INLAND PORTS ON LAKE VICTORIA[214]

4.3.1 Mwanza Ports

Two ports are operational in Mwanza. Mwanza North serves mainly as a passenger terminal while intermodal freight facilities in Mwanza are located in the South Port.

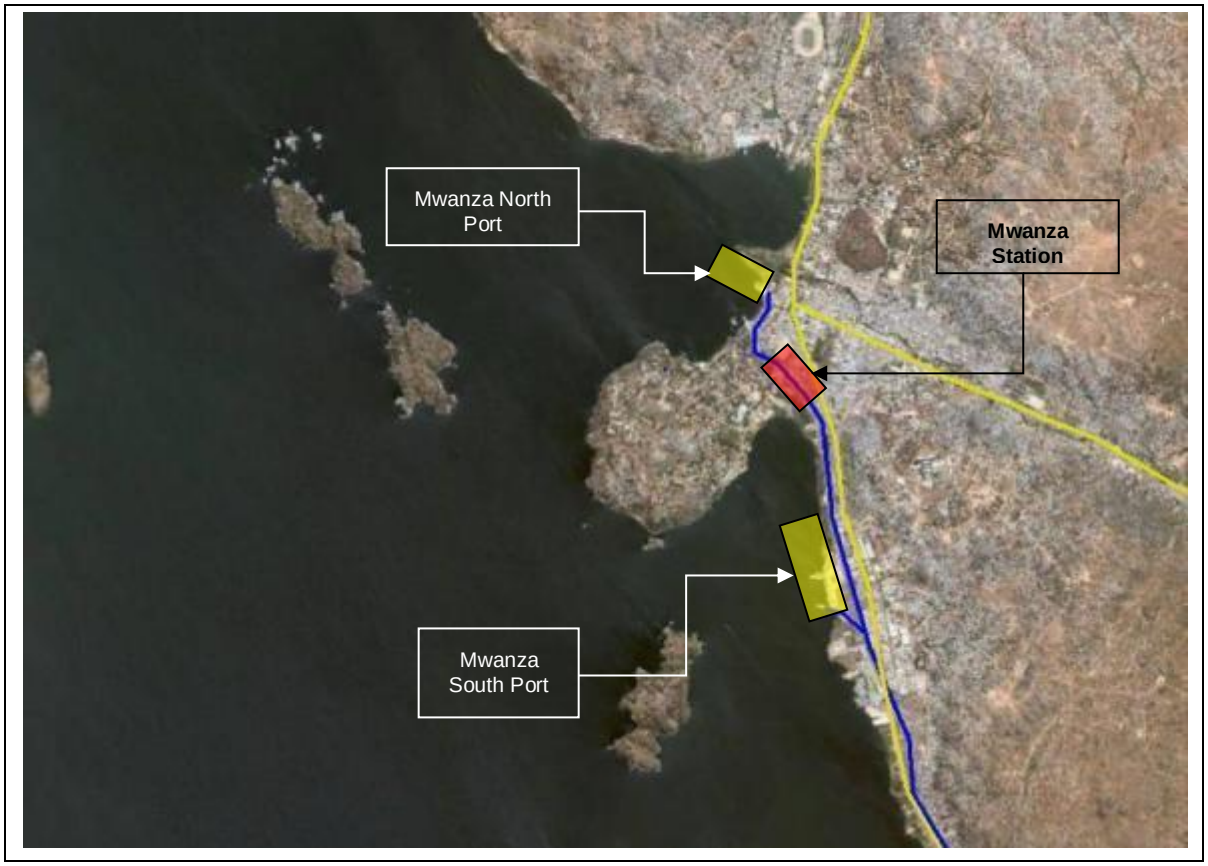


Figure 58: Overview of Mwanza Ports

4.3.1.1 Mwanza North Port

Topic	
Quay length	55m x 22m x 58m 2 berths
Yard area	1,700m^2 (lake side of the old passenger terminal)
Port area TPA	2 hectares
Lake connectivity	Water depth along quay is said to be limiting, should be approx 3m
Land connectivity	Road, Rail (currently not used)

[214] Integrated Transport Strategy – Lakes Tanganyika and Victoria, Marine Logistics, 2009

Topic	
Equipment	Weighbridge No handling equipment: mainly passengers and small cargo
Superstructures	Regional KPA office: approx 10p. second floor is for MSCL Passenger terminal (old one and new one) Bunkering tanks: not clear why they are not being used RoRo facility (limited use)
State of infrastructure	Relative good – recently paved.
IT and communication system	New inter ports communication system has been implemented. Limited use of IT systems
Other comments / expert observations	Adjacent private operations (as in Mwanza)

Figure 59: Empty bunker tanks. Bunkering is carried out at other locations on the lake (September 2013)

Figure 60 : Rail track access to Mwanza North (September 2013)

Figure 61 : MV Victoria in Mwanza North (September 2013)

Figure 62 : Concrete quay/yard in good state, little activity; Bunkering point at end of quay (September

2013)

4.3.1.2 Mwanza South Port

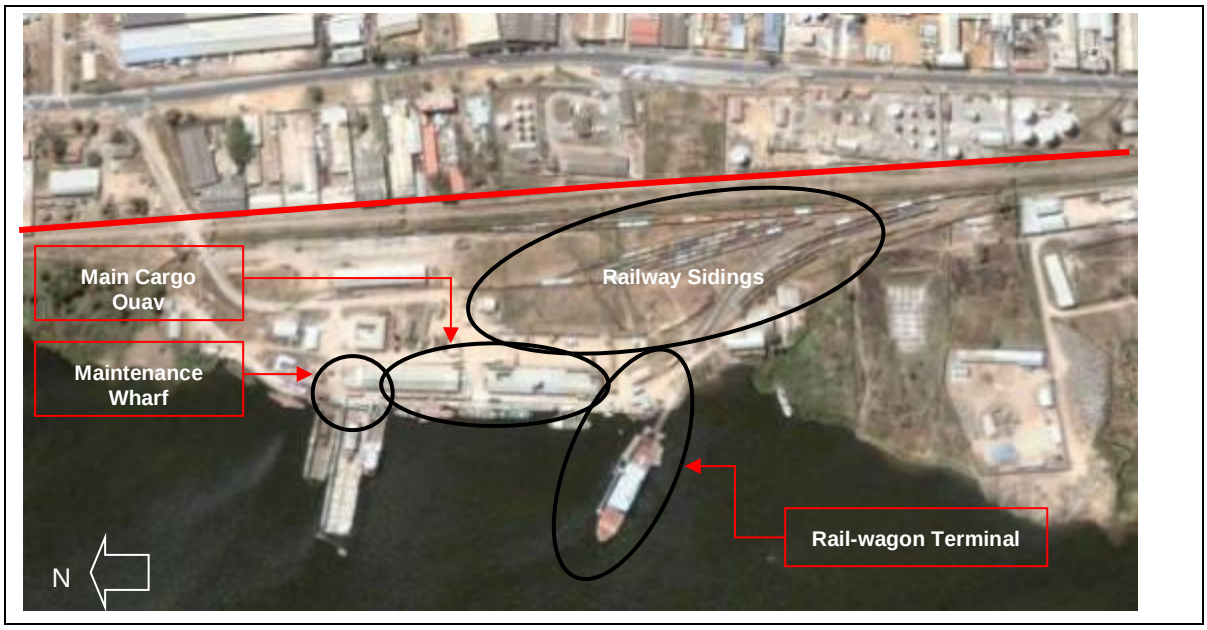


Figure 63: Site Layout – Mwanza South Port

Topic	
Quay length	220m quay length between Link span and floating dock Floating dock II: approx. 100m x 15m (recently rehabilitated) Floating dock I: approx. 50m x 12m Jetty: 70 at South side next to Link span Two tier quay level with a difference of 0.7m in height over a length of 190m hinders efficient operations
Yard area	Apron area: 220m x 12m (2-levels) Current vacant area 1.6 ha can be extended to over 2 hectares, which enables a throughput of approx. 60,000 TEUpa.
Port area TPA	Approx 7 hectares: 450m x 150m
Lake connectivity	Water depth along quay is said to be limiting
Land connectivity	Road and rail Connection to the central railway in reasonably good shape; the rail line inside the port is of a poorer state, and looped along the main quay, with two spurs, one (disused) running along the cope edge and the other fronting the goods sheds. Wagons can be parked here in readiness for shunting onto ferries through a rail-wagon terminal and located at the southern end of the quay facilities[215].

[215] Land-bridge concept study, RAHCO, 2012

Topic	
Equipment	• Weighbridge (recently acquired) • Only 1 jetty crane is operational at a max of 3 tons. • Old crane is out of use • 3 fork lifts have been acquired recently • one farm tractor used for shunting the rail cars on and off the wagon ferry
Superstructures	• Various sheds and storage area. One storage shed along the quay has been rehabilitated recently. Other structures require maintenance or upgrading.
State of infrastructure	• Generally poor: poor condition of entire yard area: area is not paved and very uneven; poor condition of railway tracks
IT and communication system	• New inter ports communication system has been implemented. • Limited use of IT systems
Other comments / expert observations	• Vacant area for e.g. container operations • 200m could provide for approx. 100,000TEUpa capacity (500TEUpa/m) if appropriately upgraded and supplied with equipment. • Potential area for storage: 2 Hectares allows for approx. 60,000TEUpa. With some adjustments a larger container yard can be developed.

Figure 64: Railway tracks

Figure 65: Weigh bridge

Figure 66: Link Span to load vessel – rarely used

Figure 67: Difficult operations with 2 level quay

4.3.2 Musoma Port

Figure 68: Aerial view of Musoma Port

Topic	
Quay length	passenger berth (100 metres in length) general cargo berth of 55 metres length[216]
Yard area	Approximately 3ha
Port area TPA	Port under the TPA Act
Lake connectivity	No traffic

[216] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

Topic	
Land connectivity	no railway connection, but railway track within the yard area to load/offload and shunt rail wagons road connection of good quality with Kenya and Mwanza
Equipment	• no cargo handling facilities
Superstructures	• two offshore mooring dolphins for berthing tank-ships for ship to shore petroleum transfers
State of infrastructure	• Poor
Other comments / expert observations	• Because of the good road connection to Mwanza, the potential for port development in Musoma is low. Construction of the Arusha – Musoma railway line would provide an opportunity for further development, but it is not likely that this will happen soon.[217] • Musoma port currently has no traffic. • It is connected to the proposed Tanga railway line. • Plays a key role in the USD 1.9bn project Tanga-Arusha-Musoma railway line connecting Tanga to Kampala (Uganda).

4.3.3 Kemondo Bay

Topic	

[217] Tanzania Ports Master Plan, Toyal Haskoning, 2009

Topic	
Quay length	rail wagon terminal (a link-span bridge), with a passenger/cargo quay (the main quay) small general berth is likewise constructed parallel to the opposite link-span guide wall link span[218]
Yard area	2.2ha[219]
Port area TPA	
Lake connectivity	
Land connectivity	no railway connection at the hinterland
Equipment	•
Superstructures	• offshore mooring dolphin • RoRo facility for ramped vessels
State of infrastructure	• Poor
Other comments / expert observations	• Kemondo Bay depends largely on the performance of TRL and the Lake ferry wagons. Unfortunately, neither are performing well at present. The wagon ferry will continue to call Kemondo Bay, but because Bukoba is the preferred port for passengers and local cargo, the development potential for Kemondo port is considered to be low. Significant investments are unlikely to be justified.[220] • An alternative port is Bukoba (see below)

4.3.4 Bukoba

The port area is completely surrounded by urban development. It is more popular than nearby Kemondo Bay for passengers and local cargo because it is located in the city. However port expansion will require some resettlement of houses and/or a redesign of the current port area.[221]

[218] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[219] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[220] Tanzania Ports Master Plan, Toyal Haskoning, 2009

[221] Tanzania Ports Master Plan, Toyal Haskoning, 2009

Figure 69: Aerial view of Bukoba Port

4.3.5 Planned interventions

Action	*status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Mwanza ports: dredging and siltation protection (including a watercourse management system)[222]	Concept in progress	1.6 USDm, funded by TPA with Belgian assistance	Restore and maintain design depths
Mwanza South Port: modernisation: pavement & redevelopment of the general cargo berths to a single level	Planned according to site visit; concept in progress	5USDm for redevelopment to a single level[223]	Facilitating port operations
Mwanza South: RoRo-terminal (by MAFI-trailers and forklifts)	Envisaged by TPA according to site visit	3.5USDm	Increase capacity of wagon ferries
Mwanza South Port: Construction ICD for 100,000TEUpa rail-water (with lift truck systems and the supply of additional mobile harbour cranes, tractor trailer units and associated equipment)[224]	Envisaged by TPA according to site visit	5.5USDm	Provide container services
Bukoba port: Development of additional quay and port area[225]	Plan		Increase capacity

[222] TICP, Aurecon, 2012

[223] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[224] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[225] Tanzania Ports Master Plan, Toyal Haskoning, 2009

4.3.6 Critical barriers to trade

- Ports are highly dependent on the railroad for much of its business. But the railroad has not been able to provide adequate service to the ports or their trading partners across the lake[226]
- None of the ports has container handling equipment at all and consequently do not handle containers unless they are on a rail wagon[227].
- All ports have serious infrastructure problems: the original piers were built between 1920 and 1930. Consequently, there are serious questions regarding their weight bearing capacity and suitability for supporting heavier cranes[228]. Horizontal operations in the port of Mwanza are hindered by the bi-level jetties[229].
- Long time in-port due to poor performance at the ship/shore interface and rigid administrative procedures (prohibiting night time sailing etc.). [230]

4.4 INLAND PORTS LAKE TANGANYIKA[231]

4.4.1 Kigoma

Topic	
Quay length	• container wharf: 96 m • general cargo wharf: 301 m • pier for passenger transport: 100 m
Yard area	3,745 m² Container yard: 50x100m^2 gross stacking capacity: 384TEU
Port area TPA	12ha
Lake connectivity	In 2009, the port has been dredged to restore the depth to 6m by a dredger that was acquired by TPA [232].
Land connectivity	A paved road between Tabora and Kigoma is currently under construction (2013). See chapter 4.6. Connection with Central railway line.

[226] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[227] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[228] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[229] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011
[230] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[231] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[232] Dredging News Online

Topic	
Equipment	• Two portal cranes with a capacity of 5 tonnes each to handle break-bulk cargo between ships/railway wagons and ships/trucks[233]. • forklift[234] Rail-mounted gantry crane of 35 tonnes with a cantilever for container handling, but it has not been in workable condition for several years due to a shortage of parts and a lack of maintenance By May 2010, the Port of Kigoma was expecting a new mobile harbour crane capable of handling containers in September. However, the design and age of the wharf will limit its effective use to less than 100 m of the quay[235].
Superstructures	• Part of the seaside of the wharf is 85 cm lower than the landside[236]. • warehouse [237]. • 10,000 m² general cargo yard[238]. Oil jetty with several oil stowage tanks; designed to accommodate small tank-ships of up-to 1,000 dead weight tons carrying capacity[239].
State of infrastructure	Oil jetty in deteriorated condition[240].
Other comments / expert observations	At present, it is impossible to load/discharge containers at Kigoma because no (working) handling equipment is available[241].

4.4.2 Bujumbura

Topic	
Quay length	main cargo berth: 360m [242] northern berths: 120m and 30m, for the discharge of container cargo and ship repair
Yard area	18,000 square metres of paved open storage in the back port area[243] car parking area of 7,500m² [244] paved high value goods yard and freight station of about 16,000m² [245]

[233] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[234] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[235] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[236] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[237] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[238] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[239] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[240] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[241] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[242] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[243] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

Topic	
Port area	
Lake connectivity	Sediment from the river Ntangangwa has reduced depth to approximately 3m within the entrance channel and the inner port basin. This situation is compounded by the presence of a storm-water outfall at the head of the basin, sedimentation from which renders part of the main berth unusable[246].
Land connectivity	Only by road
Equipment	four portal (rail-mounted) cranes of 5 tons capacity[247] fixed lattice dockside crane
Superstructures	• 4 transit sheds, each measuring approximately 100x45m[248] • Port workshops in a shed [249] • bulk oil (petroleum) terminal (inner section of port entrance channel) [250]
State of infrastructure	The berths are quite in a good state for current traffic level. Cranes are old but still functioning.
IT and communication system	
Other comments / expert observations	Containers discharged at the northern short of the main basin are trucked to the main port area. [251] 4 hectares of undeveloped land east, and a plot of about 3.8 hectares. Bujumbura is the sole port that has the capacity for handling lift on-lift off (LoLo) containers in the northern part of the lake[252], but it remains unused due to lack of container traffic on the lake. There is a new main concessionaire in the port since 12/2012: Global Port Service.

[244] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[245] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[246] The Burundi Maritime, Port and Railway Authority declared that fixing this problem is crucial.
[247] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[248] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[249] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[250] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[251] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009
[252] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

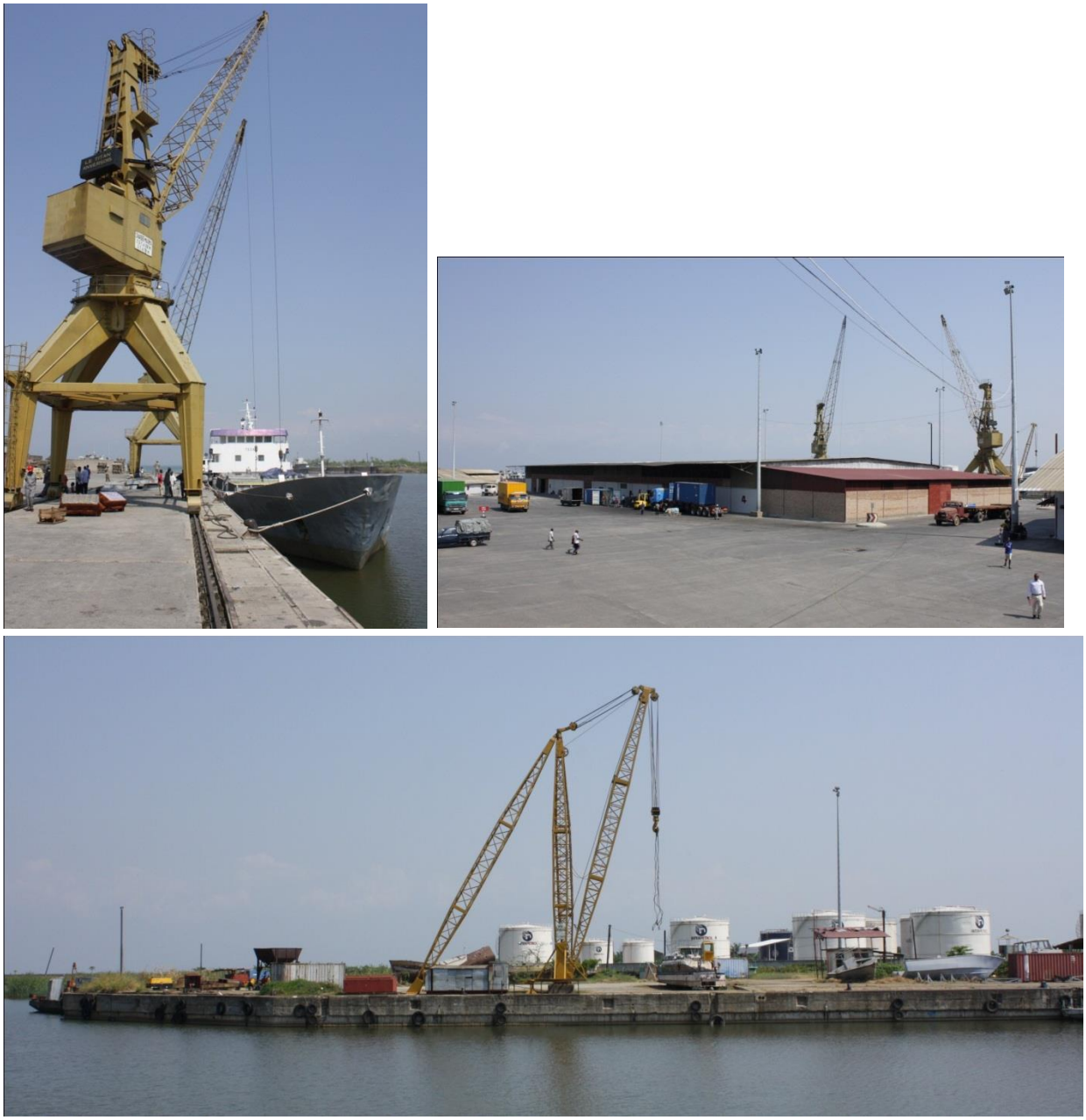


Figure 70 Port of Bujumbura

4.4.3 Planned interventions

Action	*status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Master Plan of the port of Bujumbura : 1. Sewer channel deviation project 2. Dredging activities in the basin area 3. Containers terminal 4. Ship Repair facility 5. Rehabilitation of the berths	Feasibility study done Financing plan under discussion with JICA and ADB	40 USDm	With this 5 short term projects the port of Bujumbura will be able to increase his capacity and efficiency[253].
Hydrography, charting and aids to navigation[254]		0.45 USDm	Undertake and/or complete hydrographic surveys and install lake-wise and port navigation aids, especially leading lights designed guide ships along safe passages when entering and leaving a port and jetty-end lights marking the limits of breakwaters, piers etc.
Kigoma: Kibirizi Oil Jetty access[255]			Safe access and egress including realignment of boundary walls, construction of a linear access-way to the backshore area, car-parking, fencing and gates, jetty control and fire-fighting facilities
Kigoma: Vessel bunkering facilities adjacent to the passenger terminal to Kibirizi Oil Jetty[256]			
Provide and install LoLo container handling equipment to the port of Bujumbura and Kalemie, including mobile harbour cranes, front loaders, reach stackers and tractor trailer units[257]			
Kigoma port: redevelopment of general cargo berths to a single level[258]			Facilitating horizontal transfer operations

[253] During the site visit in June 2013, the Burundi Maritime, Port and Railway Authority has declared that construction of a sewer channel is the top priority of the Port Masterplan.

[254] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[255] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[256] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[257] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[258] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

Action	*status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Kigoma Port container facilities: increase the number of ground slot capacity to 144 TGS, expand the container storage yard in landside areas for empty storage and convert back-port sheds into a CFS [259] Civil Works: Re-alignment of railway tracks Re-location of container stacking yard Equipment Procurement 3 - Reach Stackers 4 – Trailer Heads and Chassis Construction Period: 2013 - 2014 Future expansion plan: doubling the breakbulk and container berths and yards northward[260]	Planned 2013-2014	25 USDm	Increase capacity of existing container handling facilities and storage yard to 30000 TEU per year It is aimed to develop Kigoma as a counter port to Bujumbura to ensure that they together can accommodate container handling at lake Tanganyika.

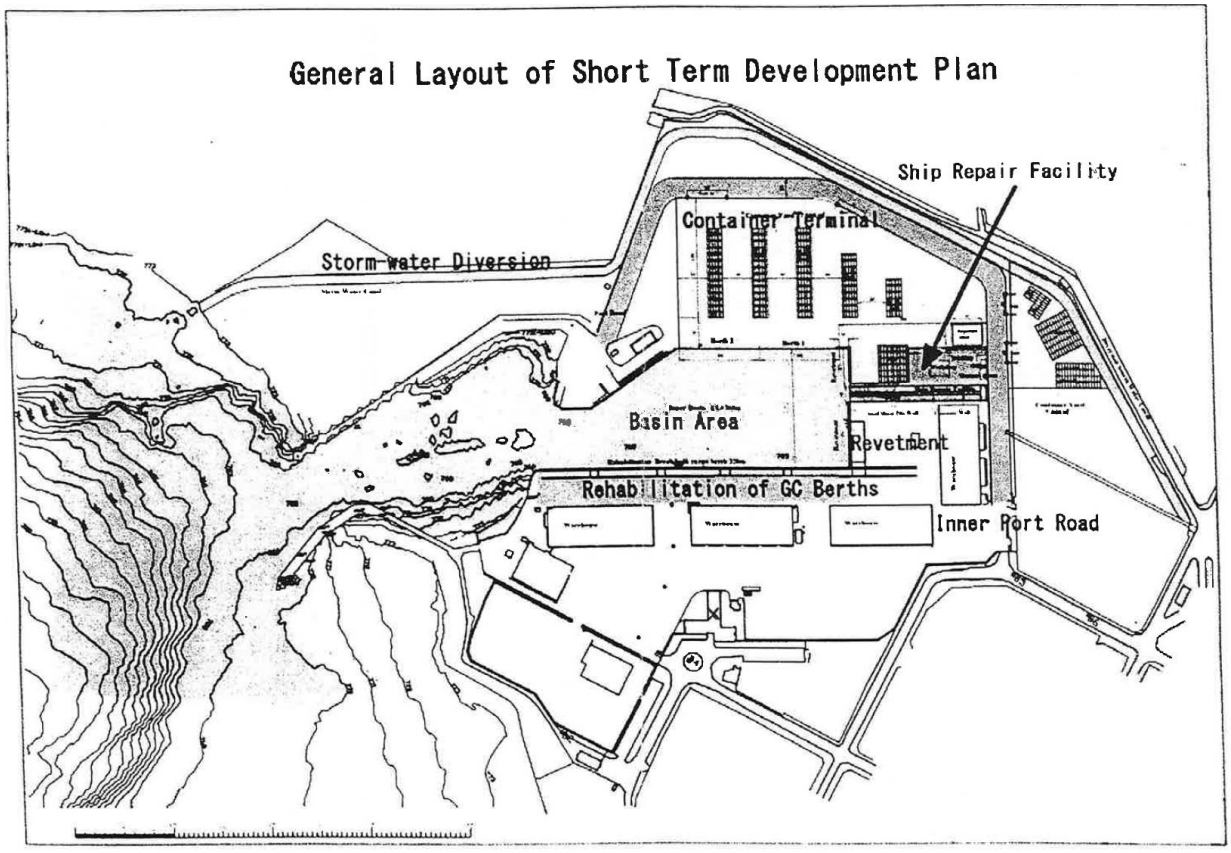


Figure 71: Bujumbura Port Masterplan[261]

[259] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[260] Tanzania Ports Master Plan, Toyal Haskoning, 2009

[261] Master plan for the Development of the Port Sector in Burundi, JICA, 2012

4.4.4 Critical barriers to trade:

- Rapid silting of the port of Kigoma by soil erosion, caused by a building boom of houses on the hill above the port[262].
- Kigoma heavily depends on railway services of TRL. Poor performance of TRL has resulted in a sharp decrease of cargo volumes; an acute example is the shut-down of rail services to Kigoma in 2010, due to emergency repairs to a segment of the railway that had been washed out due to river flooding[263].
- The bi-level quay in Kigoma is in bad shape and needs rehabilitation of replacement.
- The modern port infrastructure in Bujumbura cannot be used until the infrastructure deficit at Kigoma and the connecting rail are being resolved.
- There is no lake transport service that can benefit from the Bujumbura port facilities.
- Activity in Bujumbura is also heavily depending on TRL services (even if north-south exchanges with Zambia are also important).
- Diversion of a sewer out of Bujumbura port is requested to provide a long term solution to the dredging problem

4.5 LAKE TRANSPORT ON LAKE TANGANYIKA

The most important ports on the Lake Tanganyika are Kigoma, Tanzania and Bujumbura, Burundi, as part of the Central Corridor, and Kalemie, DRC. None of the other villages on the Tanzanian coast are provided with port facilities of any kind, and the TMSC ships anchor close to the shoreline from which passengers join or embark using wooden boats and canoes[264].

[262] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[263] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[264] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

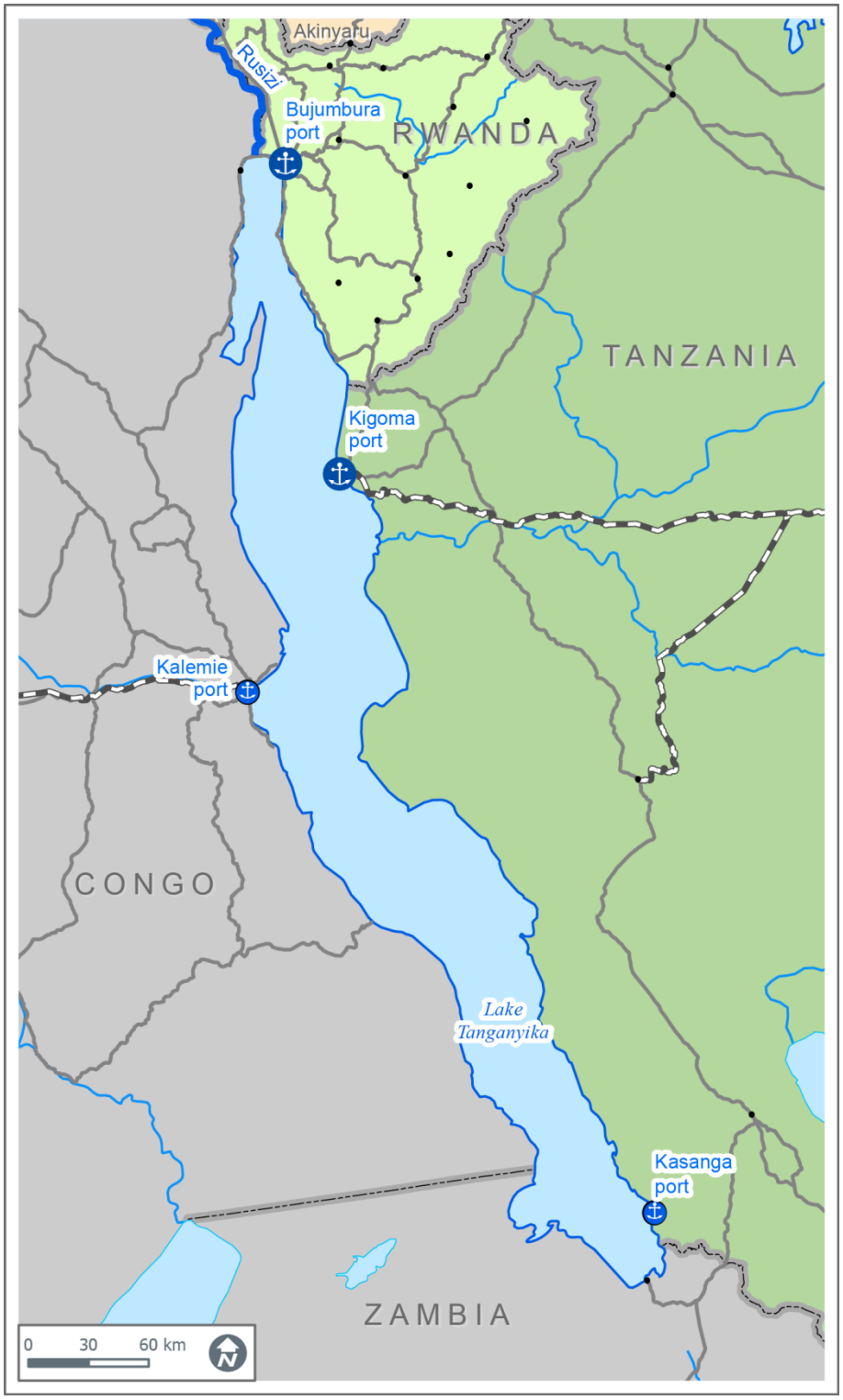


Figure 72: Ports of Lake Tanganyika

4.5.1 Services

Lake Tanganyika lies at an elevation of about 772m above mean sea level, with a surface area of 32,900 km² (length of 673km and an average width of 50km). The mean depth is 572m.

Shipping services on Lake Tanganyika are mainly operated by the Société Nationale des Chemins de Fer du Congo (SNCC), the Tanzania Marine Services Company Limited (TMSC) and in Burundi, the

shipping divisions of ARNOLAC, BATRALAC, Tanganyika Transport and SOTRALAC[265]. The relatively small demand for cargo and passenger transport on these lakes prevents the private sector from competing with these companies. [266]

In terms of fleet size, SNCC is the largest of all the shipping companies with a reported 16 vessels and 29 hatch type barges. Of these however, only three vessels and five barges are reportedly sea(lake) and cargo worthy, mainly engaged on trade between Kigoma and Kalemie/Uvira carrying WFP and/or other aid shipments[267].

In terms of cargo volume lifted on the lake and number of fixtures made, both ARNOLAC and BATRALA dominate[268]: 3 combination container/general cargo carriers with a combined capacity of 74 TEU; 6 barges (capacity of 3,796 tonnes, but 4 of these are currently laid-up); 3 tugs (1 laid-up); 4 general cargo ships (capacity of 2,610 tonnes, but one is laid-up), and 2 tankers (capacity of 799 tonnes).

TMSC ships are mainly engaged in the combined passenger/general cargo trade with 2 operating combined passenger general cargo vessels and 1 tanker. The ships sail on a weekly schedule, stopping at small villages along the shore between Kigoma and Kasanga/Mpulungu[269] to load dried fish and a small quantity of agricultural produce. One round trip takes 4–5 days; the vessel is chartered out during the idle time. [270]

According to Burundi Port and Railway Authority, vessels on the lake are currently underutilized. They are old (most vessels are over 50 years old[271]), but still working. The new ship repair facility in Bujumbura can help to modernize them.

There are no rail ferries, neither are there fully cellular container vessels.

4.5.2 Safety

There are no navigation charts of Lake Tanganyika (except very old one from Belgian period), there have been some port, through made essentially to quantify dredging needs (and these are not promulgated or disseminated to mariners).

Lake Tanganyika is not provided with landfall lights, beacons, buoys, leading lines or other facilities that delineate headlands, ship routes, known dangers (including wrecks) or the fairways and approaches to ports. Though some ports on Lake Tanganyika, most notably Bujumbura and Kigoma are provided with jettyend lights and beacons (at Bujumbura on the outer breakwater which mark the entrance to the inner port basin and at Kigoma, on the headland forming the entrance into the bay). These were however found to be extinguished and cannot therefore be relied upon.

Similar to Lake Victoria, all registered ships on Lake Tanganyika are provided with radio communication facilities, but none of the lake ports are provided with any formally structured maritime assistance services of any kind and no general weather synopsis, storm or other navigational warnings are given to ships departing any of the lake ports. There is no rescue services.

[265] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[266] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[267] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[268] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[269] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[270] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[271] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

4.5.3 Planned interventions

Action	*Status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
Navigation safety on the lake	Feasibility study done by Trade Mark EA	8 USDm	The purpose of this study is to identify, design and appraise interventions that will address issues of navigation safety and security as well as related environmental constraints along the Central Corridor waterway on Lake Tanganyika. The study will enable the relevant authorities in Burundi and Tanzania to adopt harmonized and/or joint programmes, mobilize the required funding and implement the relevant interventions within their respective territorial waters. This will allow the riparian states to meet their international and national obligations regarding navigation safety. Improved navigation safety is expected to create a crowding-in effect leading to broader improvements in lake transport operations and increased investment in related infrastructure development.
Navigation aids on Rusizi River	Concept		Improvement of navigation on Rusizi River between Zambia and Rwanda
Hydrography, charting and aids to navigation[272]			Undertake and/or complete hydrographic surveys and install lake-wise and port navigation aids, especially leading lights designed guide ships along safe passages when entering and leaving a port and jetty-end lights marking the limits of breakwaters, piers etc.

4.5.4 Critical barriers to trade

- Because of the poor performance of TRL, traffic through Kigoma and Bujumbura Port has lost its important role in international trade with the neighbouring countries[273]. An acute example is the shut-down of rail services to Kigoma in 2010, due to emergency repairs to a segment of the railway that had been washed out due to river flooding.
- No credible safety environment on the Lake due to lack of harmonisation of certification and licensing of vessels and crew (leading to a large variety of vessels to different standards), no credible and effective search and rescue and no up to date navigational aids to guide safe sailing of vessels[274]

[272] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[273] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

[274] Comprehensive Transport and Trade System Development Master Plan in the United Republic of Tanzania, JICA, 2012

4.6 ROAD

4.6.1 Infrastructure

Nearly the entire Northern Corridor stretching 2170 km from Dar es Salaam to Rwanda (Kigali) and Burundi (Bujumbura) is paved (86%) and composed of single-lane highways (98%)[275]. In Tanzania, the trunk and regional road conditions have steadily improved due to the various maintenance/rehabilitation and development activities on the road network[276]. However portions of the route through Rwanda and Burundi need to be either paved or thoroughly rehabilitated. [277]

Terrain is a factor that complicates road-building along this corridor and many bridges are old and some cannot take high loads of trucks, especially because overloading occurs frequently. [278]

A narrow one-way road bridge west of Dar es Salaam is a major bottleneck on this corridor.

[275] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[276] Road Maintenance management System, TANROADS, 2010

[277] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[278] Technical Assistance to the Government of Rwanda for the Feasibility Study of Isaka Dryport Feasibility Study, Royal Haskoning, 2009

Figure 73: Condition of Central Corridor Roads[279]

[279] Inventory of the Corridor's roads for the East African Transport Strategy and Regional Road Sector Development Program, Aurecon Engineering, 2010

There is no direct road connection between Dodoma and Kigoma. Construction of a bridge in this section is planned and would allow trucks to take the direct route.

Table 4-3: Road condition Central Corridor

Segment	*Length*	*Number of lanes*[280]	*Road surface*	*qualitative assessment of maintenance state*	*Existing traffic volumes per day*
Dar-es-Salaam – Morogoro	197	2*1	Paved[281]	Generally good, Fair to Poor on some sections	11355 light veh ; 461 heavy veh/day [282]
Morogoro-Dodoma	260	2*1	Paved[283]	Generally good, Fair to Poor on some sections	769-1867 veh/day[284]
Dodoma-Singida	234	2*1, except approximately first 5km from Dodoma 2x2	Paved[285]	Good[286]	660-1127 veh/day[287]
Manyoni-Tabora	245	2*1	Paved	Partly under construction :Manyoni-Itigi-Chaya (89 km) and Nyahua-Tabora (85 km) On-going design: Nyahua-Chaya[288]	
Tabora-Kigoma	429	2*1	Paved	Partly under construction : Tabora-Nondo (42 km), Nondo-Urambo (52 km), Malagarasi bridge with its approaches (48 km)[289]	
Singida-Nzega	218	2*1	Paved[290]	Good[291]	396-5829 veh/day[292]
Nzega- Isaka	66	2*1	Gravel[293]		249 light veh ; 217 heavy veh/day [294]

[280] Google Earth & Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

[281] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[282] TICP, Aurecon, 2012

[283] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[284] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[285] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[286] Assumption based on the Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011: nearly the entire corridor through Tanzania was rated "sound".

[287] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[288] TANROADS, 2013

[289] TANROADS, 2013

[290] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[291] Assumption based on the Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011: nearly the entire corridor through Tanzania was rated "sound".

[292] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[293] TICP, Aurecon, 2012

[294] TICP, Aurecon, 2012

Segment	*Length*	*Number of lanes*[280]	*Road surface*	*qualitative assessment of maintenance state*	*Existing traffic volumes per day*
Isaka-Lusahunga	223	2*1	Paved[295]	Works on-going[296]	654-1457 veh/day[297]
Lusahunga-Nyakasanza	72	2*1	Paved[298]	Good[299], on-going design project[300]	316 light veh ; 392 heavy veh/day [301]
Nyakasanza-Kobero	59	2*1	Paved[302]	Poor[303], on-going design project[304]	1478 light veh ; 261 heavy veh/day [305]
Kobero-Gitega	127	2*1	Paved	Poor[306]	872 light veh ; 142 heavy veh/day [307]
Gitega-Bujumbura	106	2*1	Gitega – Nyakararo: gravel; Nyakararo – Bujumbura: paved	Poor[308]	300 veh/day [309]
Nyakasanza - Rusumo	23	2*1	Paved[310]	Good[311], on-going design project[312]	316 light veh ; 392 heavy veh/day [313]
Rusumo – Kayonza – Kigali (RN3)	150	2*1	Paved	Good, with some fair segments[314]	336 light veh ; 55 heavy veh/day [315]

[295] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[296] TANROADS, 2013

[297] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[298] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[299] Technical Assistance to the Government of Rwanda for the Feasibility Study of Isaka Dryport Feasibility Study, Royal Haskoning, 2009

[300] TANROADS, 2013

[300] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[301] TICP, Aurecon, 2012

[302] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[303] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011: time, cost, and reliability is inefficient and uncompetitive according to global standards

[304] TANROADS, 2013

[304] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[305] TICP, Aurecon, 2012

[306] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011 – Aurecon: time, cost, and reliability is inefficient and uncompetitive according to global standards

[307] TICP, Aurecon, 2012

[308] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011 – Aurecon: time, cost, and reliability is inefficient and uncompetitive according to global standards

[309] Burundi Ministry of Transport, Public Works and Equipment (Pierre Bayihishako, Director of Road Planning)

[310] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[311] Technical Assistance to the Government of Rwanda for the Feasibility Study of Isaka Dryport Feasibility Study, Royal Haskoning, 2009

[312] TANROADS, 2013

[312] Comprehensive Transport & Trade System Development Master Plan in Tanzania, JICA, 2012

[313] TICP, Aurecon, 2012

[314] Transport Observatory Project, Transit Transport Coordination Authority of the Northern Corridor, 2013

Segment	*Length*	*Number of lanes*[280]	*Road surface*	*qualitative assessment of maintenance state*	*Existing traffic volumes per day*
Namanga Corridor (Iringa – Dodoma – Arusha)	900	2*1	Mostly gravel	Poor[316]	Most parts less than 500 vehicles per hour[317]; busiest stretch north of Dodoma

4.6.1 Procedures

Also on the Central Corridor, border crossings cause significant delays and uncertainty, due to poor infrastructure, uncoordinated customs procedures and congestion. [318]

EAC Member States have committed to adding an OSBP at each crossing on the route; crossing times are expected to improve once these new procedures are fully in place.

An OSBP feasibility study and a preliminary infrastructure design have already been completed.[164]

Most goods imported to Rwanda or Burundi are not cleared at border posts, but instead must be escorted to Kigali or Bujumbura, respectively, for clearance. The same applies in the other direction, before transporters leave their departure point, they must file export papers with the revenue authority at the capital to be sent to the border post. [319]

In Tanzania, Rwanda, Burundi and Uganda, the ASYCUDA system operates to implement customs procedures for entry processing, cargo control, transit, warehouse control, and accounting[320].

Table 4-4: Border posts Central Corridor

Location	*Infrastructural issues*	*Procedures*	*Opening hours*	*Traffic*	*Time*
Rusumo (Tanzania-Rwanda)	The existing bridge is only one lane, and is not built to withstand the maximum allowable vehicle weights in use on the route[321] Congested packing yard [322]	Construction of OSBP started; RADDEx2.0	Tanzania and Rwanda have signed a Memorandum of Understanding for 15-hour operations[323]	100 HGVs per direction per day[324]	4 hours[325]

[315] TICP, Aurecon, 2012

[316] Assumption based on the Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011: nearly the entire corridor through Tanzania was rated "sound".

[317] East African Transport Strategy and Regional Road Sector Development Program, EAC, 2011

[318] Trade facilitation in the East African Community, US International Trade Commission, 2012

[319] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[320] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[321] Trade facilitation in the East African Community, US International Trade Commission, 2012

[322] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

[323] EAC website

[324] Trade facilitation in the East African Community, US International Trade Commission, 2012

[325] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

Kobero/Kabanga (Tanzania-Burundi)		OSBP in tendering phase	24 hours/day on Burundi side[326]	50 HGVs per direction per day[327]	
Mutukula (Tanzania – Uganda)		Construction of OSBP started; RADDEx2.0	24 hours/day on Uganda side[328]	20 HGVs per direction per day[329]	7 hours (April 2011)[330]

Legal maximum gross weights still vary widely among member countries, with Burundi and Rwanda allowing a weight of 53 mt, and Tanzania permitting loads of 56 mt[331]. Like in the Northern Corridor, these load regulations are enforced by numerous weighbridges, which are mandatory for all commercial vehicles, regardless of origin or destination. Only escorted transit goods vehicles are exempt from multiple weighing; other transit goods have to be weighed several times.

Informal stops and payments are reportedly not as pervasive on the Central Corridor as on the Northern Corridor, but they do raise trading costs along the route. Transporters on the Central Corridor report informal payments of about $50–$100 per truck.[332]

Table 4-5: Weighbridges Central Corridor

Location	*Time*
Tanzania weighbridges: Kibaha, Kihonda, Mikese, Singida, Mwendakulima, Kahama, Nyagahura,	7 hours in total; Kibaha 1h45; Kihonda 49m ; Mikese 44m; Dodoma 31m; Singida 19m; Mwendakulima 30m; Kahama 66m; Nyakahura 59m[333]

Most of the trucks operating on the route are Tanzanian-owned since it is easier for them to arrange cargo from the port and then seek return hauls in the other countries. Road transporters from the land-locked countries generally have an office or a partner that arranges for return haulage, mostly to their own country. The cargo is significantly imbalanced in favour of imports and many return hauls are empty.

4.6.2 Planned interventions

[326] Status of elimination of NTBs in the EAC, December 2012

[327] Trade facilitation in the East African Community, US International Trade Commission, 2012

[328] Status of elimination of NTBs in the EAC, December 2012

[329] Trade facilitation in the East African Community, US International Trade Commission, 2012

[330] Trade facilitation in the East African Community, US International Trade Commission, 2012

[331] Trade facilitation in the East African Community, US International Trade Commission, 2012

[332] Trade facilitation in the East African Community, US International Trade Commission, 2012

[333] CEP policy Brief on Road Blocks 2012

Action	*status*	*estimated cost*	*qualitative assessment on the impact on system performance of the corridor*
OSBP Kobero/Kabanga	Feasibility study and design completed by TMEA, construction in tendering phase[334]		Reduce waiting times
OSBP Rusumo, including 2-lane bridge	Under construction		Reduce waiting times and allow Rwandan authorities to clear vehicles here instead of escorting them to Kigali
OSBP Mutukula	Under construction	6 USDm[335]	Reduce waiting times
Modernization Tanzanian weighbridges[336]			Reduce waiting times
Reinstatement of Rwandan weighbridge in Rusumu and Kayonza	Decision taken	4 USDm[337]	Reduce overloading to limit road deterioration
Southern Bypass Dar es Salaam	Concept[338]		Alternative route to the DES port, reducing congestion
Expressway Dar es Salaam – Chalinze – Morogoro[339]	Prefeasibility completed, feasibility and detailed design is to be undertaken under WB funding	555 USDm	Increase capacity and relieve congestion
Pavement of Nzega – Kagongwa (Isaka)	Concept	79 USDm[340]	Increase travel speeds
Lusahunga - Rusumo	Design in progress	65 USDm[341]	Increase travel speeds
Rusumo – Kayonza	Design complete	70 USDm[342]	Increase travel speeds
Kayonza – Kigali: toll road	Concept	0.2 USDm for feasibility study[343]	Increase travel speeds
Rusumo – Kigali: capacity upgrade	Concept	83 USDm[344]	Increase travel speeds
Nyakasanza - Kobero	Design in progress	35 USDm[345]	Relieve traffic pressure on central corridor
Kobero - Gitega - Mweya – Nyakararo - Bujumbura	Concept in progress; prefeasibility commenced	235USDm[346]	Relieve traffic pressure on central corridor

[334] Integrated Border Management, USAID, 2012

[335] The Observer, 27 August 2013

[336] TradeMark South Africa, 2013

[337] Strategic Transport Master Plan for Rwanda, Aurecon, 2012

[338] TICP, Aurecon, 2012

[339] Trans East African Networks Match-Making Conference, Kampala, 2013

[340] TICP, Aurecon, 2012

[341] TICP, Aurecon, 2012

[342] TICP, Aurecon, 2012

[343] Strategic Transport Master Plan for Rwanda, Aurecon, 2012

[344] Strategic Transport Master Plan for Rwanda, Aurecon, 2012

[345] TICP, Aurecon, 2012

[346] TICP, Aurecon, 2012

4.6.3 Critical barriers to trade

- Overloading and deferred maintenance resulted in sections with poor infrastructure[347], especially the Rwandan and Burundian segment needs spot rehabilitation. Other sections face congestion, but this is related to the limited use of the railway system.
- Checks at border posts, weighbridges and roadblocks slow down goods transport and increase the uncertainty of delivery times.[348]
- Overloading control strategy is aimed at 100% checking. However, informal payments to speed inspections at weighbridges, even for compliant vehicles, provide an incentive to not comply with weight regulations, hereby limiting the enforcing power of load limits and speeding up the wear down of roads. [349]
- Lengthy and varying systems of import declaration, payment of applicable duty rates, and (technical and sanitary and phyto-sanitary requirement) standards applied. [350]
- Modcar systems of ASYCUDA do not permit the entry of mixed goods (divers), which requires the input of each item separately[351]
- Clearance of goods in Bujumbura and Kigali instead of at the border post imposes additional time and cost[352][353].
- Vehicles licensed for transit cannot carry domestic cargo and must use prescribed transit routes, so return routes stay empty often[354]

[347] Regionalizing infrastructure for deepening market integration, World Bank, 2012

[348] Trade Facilitation in the East African Community, US International Trade Commission, 2012

[349] Trade Facilitation in the East African Community, US International Trade Commission, 2012

[350] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[351] Assessment of Non Tariff barriers along the Northern & Central Corridors, Private Sector Federation, 2008

[352] Trade facilitation in the East African Community, US International Trade Commission, 2012

[353] Non-tariff measures on goods trade in the East African Community, World Bank, 2008

[354] Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, Nathan Associates, 2011

5. REVIEW OF THE INSTITUTIONAL FRAMEWORK - INTRODUCTION

5.1 OBJECTIVE

The overall objective of this task is to identify any legal, regulatory, policy, and/or operational changes necessary to facilitate an efficient and effective intermodal service for freight. In more detail the following objectives have been defined in the Terms of reference.

1. Review of the current legal and regulatory framework
   a) Summary of the regional and national legal and regulatory framework to ascertain any weaknesses, gaps, and/or necessary changes to permit the introduction of an efficient and effective intermodal service
   b) Assessment of the compliance of domestic legislation with regional agreements, and any divergence either between the frameworks, or in implementation
   c) Review in detail the current procedural steps for transit cargo, compared to international best practice
   d) Ease of gaining multi-modal licences, and identify both impediments and potential improvements

2. Overview of the sector institutions
   a) Description sector authorities
   b) Effectiveness of current organisations
   c) Potential of private sector capacity for operation and maintenance a subsequent service

3. Review of sector policy
   a) Current policy framework
   b) Degree of compliance of domestic policy with regional policy
   c) Identify any changes, or potential impediments, at either level, to the introduction of an integrated rail-centric intermodal service
   d) Assess any divergence between the frameworks and implementation

4. Review of Financing of Sector
   a) Collect and collate trend data on expenditure, split by capital and recurrent and source, for the relevant modes within the transport sector in the five countries.
   b) Justify the economic case for provision of public money for opex shortfalls, and identify new sources or modalities in use elsewhere, that could be introduced to make up any shortfall.

The objectives as described here will be assessed in the individual chapters and sections in this report.

TOR:

To review the current institutional framework in the five countries, and at the EAC level, to identify any legal, regulatory, policy, and/or operational changes necessary to facilitate an efficient and effective intermodal service for freight;

Phase 1 comprises the literature review, additional data collection, identification and sifting of development options, the preparation of a draft strategy and action plan, and a stakeholder workshop to discuss the draft.

Task 2. Review of the Institutional Framework.

This task requires the Consultant to review the existing institutional framework, legal, regulatory, and organizational arrangements, (sub-) sector policies, financing and current levels of cost recovery, for the relevant sub-sectors along the corridor. This should include the following sub-tasks:

a. **Review of the current legal and regulatory framework**: This sub-task will consist of a summary of the regional and national legal and regulatory framework to ascertain any weaknesses, gaps, and/or necessary changes to permit the introduction of an efficient and effective intermodal service. The review will also cover an assessment of the compliance of domestic legislation with regional agreements, and any divergence either between the frameworks, or in implementation. The Consultant is also expected to review in detail the current procedural steps for transit cargo, compared to international best practice (e.g. the use of through bills of lading, transit guarantee schemes etc.). The ease of gaining multi-modal licences, and identify both impediments and potential improvements. The objective of this stage is to identify any potential impediments to the introduction of an integrated rail-centric intermodal service;

b. Overview of the sector institutions: This sub-task will furnish an overview of the sector authorities across the region, and a description of their roles, functions and responsibilities. The purpose is to describe the current organizational framework for operations in the sector, and improvements that need to be made to facilitate the introduction of an integrated rail-centric intermodal service. Particular attention needs also be given to the effectiveness of current organizations, staffing levels, and capacity to undertake sector planning, needs assessments, prioritization, budgeting, environmental management, and formulation of improvement projects to introduce, regulate, operate and maintain an integrated rail-centric intermodal service in the region. and the potential of private sector capacity for operation and maintenance a subsequent service;

c Review of sector policy: The focus of this sub-task is to review the current policy framework at national and regional level, vis-à-vis intermodal transport. The review is intended to describe the current policy framework, the degree of compliance of domestic policy with regional policy, and identify any changes, or potential impediments, at either level, to the introduction of an integrated rail-centric intermodal service. This should include customs clearance procedures/policies related to transit cargo by road and rail. The review will also assess any divergence between the frameworks and implementation; and

d. Review of Financing of Sector: The focus of this sub-task will be to collect and collate trend data on expenditure, split by capital and recurrent and source, for the relevant modes within the transport sector in the five countries. The objective is to identify the level and source of financing within the sector organizations currently, and ascertain any shortfall to the financing (capex or opex) necessary to introduce, operate and/or maintain an efficient and effective rail-centric intermodal service. The Consultant will be expected to justify the economic case for provision of public money for opex shortfalls, and identify new sources or modalities in use elsewhere, that could be introduced to make up any shortfall.

5.2 STRUCTURE

The report structure follows the four focus areas for thess tasks.

1. Review of the current legal and regulatory framework (chapter 6)
2. Overview of the sector institutions (chapter 7)
3. Review of sector policy (chapter 8)
4. Review of Financing of Sector (chapter 9)

6. REVIEW OF CURRENT LEGAL AND INSTITUTIONAL FRAMEWORK

6.1 INTRODUCTION

"This sub-task will consist of a summary of the regional and national legal and regulatory framework to ascertain any weaknesses, gaps, and/or necessary changes to permit the introduction of an efficient and effective intermodal service. The review will also cover an assessment of the compliance of domestic legislation with regional agreements, and any divergence either between the frameworks, or in implementation. The Consultant is also expected to review in detail the current procedural steps for transit cargo, compared to international best practice (e.g. the use of through bills of lading, transit guarantee schemes etc.). The ease of gaining multi-modal licences, and identify both impediments and potential improvements. The objective of this stage is to identify any potential impediments to the introduction of an integrated rail-centric intermodal service." (ToR)

This chapter contains an assessment of the regional and national legal and regulatory framework (section 6.2), the review of the procedural steps (section 6.3) and an assessment of the multimodal licenses and regulation (section 6.4)

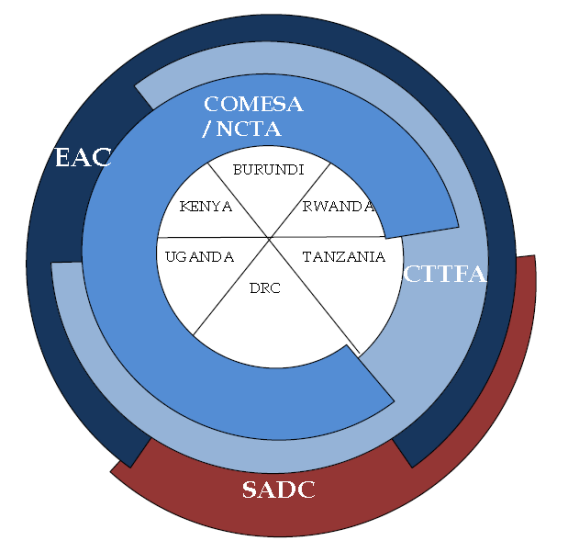
Section 6.2 'Regional and national legal and regulatory framework' describes the EAC cooperation agreements and subsequently assesses the framework on railways, ports and waterways and road transport. In each of the countries the policy (A), Legal framework (B), Institutional framework (C) and proposed areas for harmonisation (D) are defined. The proposed areas for harmonisation are combined as 'Development option on the Regional and national legal and regulatory framework'.

Section 6.3 'Review of the current procedural steps for transit cargo' describes per seaport and border crossing the procedural steps. It is subsequently mirrored against international best practice situations to obtain the conclusions and recommendations regional co-operation agreements per transport mode then per country per mode.

6.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK

6.2.1 EAC regional co-operation agreements

Transport along the Northern and Central Corridors occurs within a framework of overlapping regional and national policies. As shown in Figure 4, there are differences between the five corridor states in their memberships of the RECs and adherence to specific corridor instruments. As a result, states have different obligations in terms of adopting regional measures to facilitate transit and inter-state transport.



All states except the DRC are members of the EAC. By the same token, all states, except Tanzania are members of COMESA. Hence, the regional transport instruments of the EAC and COMESA provide the largest common denominator in terms of policies to be pursued by the region.

The adherence of individual states to regional corridor instruments displays a similar pattern. All states, except Kenya are parties to the Central Corridor Agreement. For its part the Northern Corridor Agreement includes all states except Tanzania.

The various regional instruments not only differ in terms of geographic application. As shown in Table 5, there are also differences in terms of the extent to which agreements address individual transport modes.

Table 6-1 Overview of regional co-operation agreements per transport mode

Road Transport	Inland Waterways	Railways	Maritime Transport	Pipelines
EAC Treaty (Chap 15)				
Common Market Protocol (Art 38 and Schedule on services)				
Tripartite Agreement on Road Transport	Tripartite Agreement on Inland Waterway Transport			
COMESA Treaty (Chap 11)				
Protocol on Transit Trade and Transit Facilities				

Protocol on Third Party Motor Vehicle Insurance Scheme COMESA Single Carrier License				
Northern Corridor Transit and Transport Agreement				
Protocol n° 2: Routes and Facilities Protocol n° 6: Transport of Goods by Road	Protocol n° 7: Inland Waterways Transport of Goods	Protocol n° 5: Transport of Goods by Rail	Protocol n° 1: Maritime Port Facilities	Protocol n° 8: Transport by Pipeline
Central Corridor Transit Transport Facilitation Agreement				

The agreements fall into two categories. The first category includes the two treaties, the Common Market Protocol and overarching corridor agreements. These agreements reflect a broad consensus on issues of principle, but assume further work and negotiation will take place to operationalize this consensus in practice. Agreements in this category do not necessarily become effective immediately, but rather introduce a process of regional liberalization and harmonization. This is the case, for example, with the Common Market Protocol in which states agree to progressively open their markets to permit the free movement of persons, goods, capital and services over a period of years or even decades. The second group of agreements, which includes the Tripartite Agreements on Road Transport and Inland Waterways, already contain substantial operational detail. As such, the premise is that they can be implemented immediately or as soon as individual governments have amended laws and put in place the necessary personnel, procedures etc.

(Source: Nathan Associates (2011), p. xii – xiv)

A summary of above agreements is presented in Appendix A. The following table shows issues, deficiencies, potential impact on corridor performance and recommended actions in relation to the Regional Co-operation Agreements.

Both the COMESA and the EAC Agreements aim to liberalize access to the cross-border road transport market based on a single carrier license or permit. Carries are licensed only in their states of origin. The agreements require authorities in other states to recognize such licenses/permits on the basis of reciprocity. Effectively, the need for a second or third permit in the country of destination or transit is abolished.

In conclusion the major findings are that all EAC countries need to make a more harmonised effort to fully domesticate the EAC treaties whilst apart from Tanzania the rest need to set up technically equipped bodies to effect administrative implementation of licensing and infrastructure management systems.

Table 6-2 Issues, deficiencies, potential impact and recommended actions re Regional Co-operation Instruments

Issue	Deficiency	Potential impact on Corridor performance	Recommended actions	Update 2013
Lack of implementation of regional agreement	• Regional agreements not domesticated in national law • Non-implementation of facilitation measures, e.g. single transport license • No framework for regulating competition between domestic and foreign trucking companies	• Potential facilitation benefits arising from implementation of regional agreements not secured • National authorities continue to apply more restrictive national rules that run counter to regional commitments • Discrimination against foreign carriers by national authorities	• Member states to build capacity to implement regional agreements	• Kenya to reconsider its restrictions on national rules that run counter to regional commitments. • Parallel implementation option pursued by Kenya, Uganda and Rwanda • Piecemeal implementation of aspects of agreements • Implementation still highly dependent on political goodwill • Tanzania and Burundi considering opting for other partners in DRC in disillusion of being left out • Establishment of Regulations for Kenya Maritime Authority will facilitate implementation of maritime management on Lake Victoria • Framework of High Level Standing Committee with regular meetings to push for implementation in place • Draft Common Market Constitution on Political Federation done in September 2013 awaiting Heads of State approval • Monetary Union Agreement ready and scheduled for signature by heads of state in Kampala in November 2013 • Single Visa agreement under free movement of persons between Kenya, Uganda and Rwanda set for effect in January 2014 • Tanzania remains only country charging and requiring work permits in EAC
Overlap in EAC, COMESA and Northern Corridor Facilitation Instruments relating to road transport	• Lack of clarity regarding provisions to be applied by national authorities	• Potential facilitation benefits arising from implementation of regional agreements not secured	• RECs to critically assess existing road transport agreements and initiate a process of rationalization to eliminate incidences of overlap. Pending adoption of a revised instrument, EAC states to implement the Tripartite Agreement on Road Transport to govern intra EAC road transport, while retaining the COMESA single carrier license only for transport between EAC and non EAC states who are COMESA members	• Member states to develop strategies and measures to strengthen the implementation and monitoring mechanisms in respect of transport agreement under COMESA, EAC and other Bilateral and multilateral agreements. • Initiative by African Union to harmonise different RECs provisions made but report not yet out • Decisions taken to implement aspects of EAC Road Transport Act on axle load, weigh bridges and non-physical tariffs taken • Implementation of Single Customs Territory by Kenya, Uganda and Rwanda under EAC Common Market Protocol underway

(Source grey areas: Nathan Associates 2011)

Background on the Nathan Associates' (2011) recommended actions on EAC regional co-operation agreements

R 1: RECs must critically assess existing road transport agreements and initiate a process of rationalization to eliminate incidences of overlap. As mentioned earlier, COMESA has been tasked to review agreements in the road transport sector and that the development of a new multilateral instrument has been under consideration for several years. Pending this development, the consultant's view is that the EAC states should proceed with the implementation of the existing Tripartite Agreement. There are several reasons for this recommendation:

- The EAC states are already all party to the agreement and bound in principle to apply it.
- The Agreement is based on a tried and tested model and can, therefore, be implemented relatively easily.
- The development of a consensus between the three RECs on a future model may be protracted.
- Meanwhile, non-implementation is affecting transport efficiency and cost negatively. Both are strong arguments favouring immediate implementation.
- Given their success, it is unlikely that the eventual REC consensus will depart significantly from current models used in Southern Africa. The EAC agreement is in line with this approach.
- The implementation of the Tripartite Agreement on Road Transport will only govern intra EAC road transport. Hence, states should retain the COMESA single carrier license only for transport between EAC and non EAC states who are members of COMESA (e.g. DRC). As Tanzania is not a member of COMESA, it is not obliged to issue or recognize the COMESA carrier license. On the corridors, Tanzania's unique position potentially only affects transport to and from the DRC. For such transport, Tanzania may wish to consider negotiating a bilateral agreement with the DRC, unless a suitable multilateral arrangement is agreed within SADC which would then apply to such traffic.

R 2: Member states must initiate a parallel process to build implementation capacity to administer regional agreements. This issue has already been dealt with under "Road Transport".

Non-implementation of regional instruments

Despite being in existence for several years (even decades in some cases), there is significant non- implementation of various instruments, especially in road transport109. This conclusion applies to agreements which embody implementation arrangements such as the EAC Tripartite Agreement on Road Transport. It must be distinguished from agreements that contain commitments in principle and which initiate a process of regional integration, such as the Common Market Protocol. The former agreement already contains much of the implementing detail necessary for it to become operational. By contrast, the Common Market Protocol is intended to initiate a process of regional liberalization whereby states progressively liberalize their markets to permit free movement of goods, persons, services and capital, which is a process that may take years or decades.

Given the importance of the road transport mode, non-implementation of road transport agreements implies that none of the benefits which the various agreements seek to achieve, are being secured. There appear to be various reasons for non-implementation:

- Lack of domestication in national law. This problem has been discussed earlier with regard to road transport. Without legal force, officials at national level are unable to apply the provisions of measures such as the EAC Tripartite Agreement on Road Transport. Similarly, ministries have no basis on which to request funds from treasuries to secure implementation.
- Lack of capacity. There is limited capacity within the RECs to assist national governments with implementation. At the same time, national ministries also lack resources to drive implementation. Despite good intentions, the reform efforts flounder.
- Insufficient appreciation of the potential benefits inherent in the various agreements. It is the consultant's view that there is a low level of awareness among stakeholders (governments, service providers and users) about the existence of regional facilitation instruments. The fact that instruments are already several years old and have not been implemented, is discouraging and saps the enthusiasm of those responsible for taking steps to move the process forward.
- Overlap between agreements. This issue is discussed next.

Overlap in regional instruments

There is significant overlap between agreements. This is illustrated by the following:

- The two principal guiding instruments – the EAC Treaty and the COMESA Treaty – are almost verbatim copies in terms of their respective chapters on transport.
- The EAC Tripartite Agreement on Road Transport and the COMESA Single Carrier License seek similar outcomes. By virtue of its geographic scope, the EAC Agreement applies to both Northern and Central Corridors. However, under Protocol n° 6 to the NCTTA, the COMESA license also applies to the Northern Corridor. Hence, there is confusion about which instrument applies. As discussed in Box
- 3, the EAC Agreement is more detailed and has been drafted with reference to the experience of Southern African governments in implementing similar arrangements since the early 1990's. In the consultant's opinion, the EAC Agreement is the superior instrument.

Both instruments cover inter-state and transit transport of goods by road. The following may be observed:

1. The definition of "transit" in the two agreements differs from the definition in the EAC Customs Management Act. The latter only includes the movement of goods imported from outside EAC transported to a location outside the EAC. The former defines transit as movement across the territory of a party to a destination beyond its frontier.
2. The NC Protocol requires each party to recognize the road transport license issued by another party based on the COMESA Carrier License regime. The EAC Agreement assumes that states will issue an EAC license and that there will be a process of license adjudication and that licenses may be refused (e.g. on the grounds of contravention of license conditions or to manage capacity on routes).
3. The EAC Agreement contains an express clause that a carrier licensed in its home state requires no additional license in the state of destination or transit. Both agreements prohibit cabotage.
4. The EAC Agreement has the specific objective of managing capacity in the market and provides a suitable mechanism.
5. The EAC Agreement provides for specific oversight bodies to be created to administer its implementation (Joint Technical Committee and Route Management Groups). The NC Protocol relies on institutions created under the main treaty.

(Source: Nathan Associates 2011)

6.2.2 Railways

6.2.2.1 Summary and main findings on railways

The EAC does not have a specific standalone agreement on railway transport and is provided for under the general obligation of Articles 89 and 91 of the Treaty that provides that in order to promote achievement of the objectives of the Community as set out in Article 5 the partner states undertake to evolve, co-ordinated harmonised and complementary transport and communications policies; improve and expand existing transport links; establish new ones as a means of furthering cohesion of the partner States. Article 91 on the other hand provides for the establishment and maintenance of coordinated railway services that would effectively connect the partner States with the Community and where necessary construct additional railway connections.

Apart from these provisions the railway lines after collapse of the defunct EAR have been run and managed by respective national bodies under national legal frameworks.

Past integration efforts in East Africa have included railway transport as an integral part of the multi-modal transport network under the defunct East African Railway Services. After reversion to the individual member state railway services of Tanzania Railway, Kenya Railway and Uganda Railway run by the public sector railway companies the network has long been experiencing a deterioration of their operations and investments resulting in heavy losses of income. As part of measures for the recovery of the respective public enterprises, measures were taken in the three East African countries namely Kenya and Tanzania to involve the private sector in the management of railway activities through concessions. Another significant measure that has been taken to mitigate problems facing the railway sector was to promote inter-governmental co-operation. These initiatives have mainly focused on joint efforts to modernize railway networks and development of an East African railway network.

In the EAC, co-operation in the railway sector is one anchored on Articles 89 and 91 of The EAC Treaty by Member States as there is nospecific legislative framework for its management and operation. The emphasis is more on individual states to manage the section falling within their boundaries whilst entering some agreements of managing the service across borders.

The following table shows an update of the issues, deficiencies, potential impact and recommended actions re Railways: Legal and Regulatory Framework.

Table 6-3 Issues, deficiencies, potential impact and recommended actions re Railways: Legal and Regulatory Framework

Issue	Deficiency	Potential impact on Corridor performance	Recommended actions	Update Sub-consultant Consulting (2013)
Railway safety	• Lack of regulatory framework for railway safety in Kenya and Uganda	• Higher incidence of derailments and other accidents	• Establish an independent safety and environmental regulatory for the railway sector (Kenya and Uganda)10	• Recommend introduction of framework for independent regulator. • Recommend adoption of uniform approach to international bodies • Adopt comprehensive guidelines to common transport policy • Recommend integration of technical standards to national systems • Recommend ratification of international conventions and instruments on rail transport • Create railways unit at EAC • Strengthen role of corridor committees
Railway legislation	• Lack of enabling frameworks for railway infrastructure and services (in Burundi, DRC and Rwanda)	• Heightened uncertainty for investors • Potential delay in implementing PPP • projects • Discouragement of private investment	• Adopt enabling laws for the provision of railways services	• Give special role to EALA • Recommend ratification of international conventions and instruments on rail transport • Recommend increased financial efficiency in sub-sector • Adopt common and comprehensive guidelines on rail transport policy • Recommend liberalisation and introduction of market forces
Identification and preparation of PPP projects	• See "Road Infrastructure" • above	• See "Road Infrastructure" above	• See "Road Infrastructure" above	• Commencement of Kenya, Uganda standard guage rail line on PPP basis is ongoing • Plans to extend line to Rwanda also underway • Commencement of LAPSSET railway line on PPP mode between Kenya, Sudan and Ethiopia and now Uganda

(Source grey areas: Nathan Associates 2011 p. xvix)

6.2.2.2 Deficiencies in framework

A review of the existing legal and regulatory framework in East Africa shows the following issues.

(i) There is serious overlapping of membership and functions between different legal frameworks and, unfortunately, there is no common approach by EAC Member States. There are a number of players at the national, regional, continental and international level with a direct interest in railway sector in EAC. The necessity of involving all these role players in some or other way is not disputed.However, it is clear that their relative role in respect of proximity to implementation differs. As a result, there is a need to clarify and circumscribe their relative roles.\

(ii) In order to streamline the legal framework, regional based institutions should ideally co-ordinate regional economic communities' policies and strategies, observe, monitor regional economic communities' initiatives and disseminate best practices. The regional economic communities should facilitate regional policy harmonization, observe corridor and national implementation, disseminate best practices and monitor corridor committees. The corridor committees such as CCTTA and NCTTA should anchor for public-private partnership across two or more countries focussing on elimination of constraints, marketing investment opportunity and improving transit efficiency and monitoring of national implementation. The national governments should develop and implement national policies and enabling frameworks. Then national co-ordinating committees should identify enablers and constraints, investment opportunities and potential efficiency gains at national level, and co-ordinate within government and with private sector

(iii) Some of the legal frameworks were not based on realistic premises. As a result, these frameworks have not been as effective as anticipated. A solid and sound legal framework should start with what is in place and not what 'will' be in place.

(iv) The Northern Corridor Transit Agreement provides a good basis for structuring legal co-operation in the railway sector in the EAC. Since its establishment, the NTTCA has focused on the reduction of transport costs on the corridor and facilitation of trade and traffic. As such, it has coordinated a number of initiatives that have reportedly resulted in improvements in corridor efficiency. Although TTCA operates under a very limited budget, it has managed to set a baseline for the preparation of corridor action plans. NTTCA type institutions can be strengthened for central and southern corridors.

In implementing the EAC Treaty provisions, the Second EAC Development Strategy 2006-2010 was adopted and its main objectives regarding railway services were to first asses the state of restructuring the railway in the three states in terms of ownership, management, infrastructure financing and investment and national legislations and human resource. It also had the second objective of harmonising the approaches to these issues across the region.

6.2.2.3 Identified Barriers to integration

The recurrent barriers to integrating the rail service as intended have been identified as ;

(i) Differences in national laws between the member states
(ii) Lack of well structured financing options
(iii) Absence of an effective monitoring and regulatory framework across the region
(iv) Resistance to integration at domestic levels

(v) Slow substantive cahanges in national legislations relating to rail services

(vi) Overlapping membership of states in the different regional bodies

(vii) Different regulatory frameworks and licensing sytems

(viii) Lack of clear division of responsibilities between the EAC States

These differences have limited the development of the EAC rail service uniformly and resulted in each country applying its own standards and priorities even where the service eventually trunkets into that of the neighbouring state.

6.2.2.4 Recommendations going forward

In order to address these differences it has been recommended by the railway operators that a raft of measures are taken namely:

(i) Adoption of a uniform approach to national bodies whereby the EAC champions the harmonisation of national policies and uniform best practices so that the services flow into each other's territory. The corridor committees on the other hand should create an enabling environment for private sector investment into the system through appropriate public private ventures for commercial returns

(ii) Adoption of comprehensive guidelines for common transport policies because the success of a corridor system and its individual components lies in the effectiveness of the entire chain of logistics

(iii) Increased financial efficiency in the rail sector is critical because to date the service has not attained the levels of commercial competitiveness. It is normally operated almost on a wholly subsidised or heavily monopolised manner thereby not developing business viability to withstand competition.

(iv) Introduction of market forces in the sector by allowing an interplay of freight forwarders, shippers, port operators, logistics companies and international passenger services so as to diversify its domain

(v) Integration of technical standards of national systems which include harmonised and state of the art facilities, railway infrastructure and systems that promote a competitive and efficient operation across borders.

(vi) Introduce a common licensing system that is recognised across the region thereby allowing efficient participation in international trade and trans border operations

(vii) Ratification of important international conventions and instruments on rail transport such as the Bern Convention on International Rail Transport, 1980 as far as they are applicable to the local circumstances

(viii) Creation of a railway unit at the EAC establish and monitor common regulations and standards of safe operation as well as provide technical assistance as appropriate

(ix) Strengthen the role of corridor committees in facilitating and effecting public private interventions into the sector owing to the huge capital outlays that the engagement requires at the initial point. This is even more critical due to the ancillary yet very indispensable facilities that come along with an effective railway service such as logistics parks and warehouses, cargo handling terminals, port rail linkages, inland container terminals, passenger terminals, hospitality and catering services, commercialised sections like food plazas, cybercafés, rest rooms etc.

(x) Adoption of comprehensive guidelines for the railway sub-sector covering safety, infrastructure financing, training and certification of crew, passenger rights, compensations for freight breaches and provision of research and statistics.

6.2.3 Ports & waterways

6.2.3.1 Summary and main findings on ports and waterways

(*Pending completion of data analysis and Consultant input)*

Table 6-4 Issues, deficiencies, potential impact and recommended actions re Seaports and Inland Waterways: Legal and Regulatory Framework

Issue	Deficiency	Potential impact on Corridor performance	Recommended actions	Update Consultant (2013)
Management of inland waterways	• Non-implementation of Protocol on Inland Waterway Transport	• Lack of harmonized regulation	• Adopt measures to implement • Inland Waterway Protocol	• Enactment of Kenya Maritime Authority Regulations mandate implementation on Inland Waterway Transport • Lake Victoria Safety Management Rules Enacted
Port management reform	• Delay in implementing landlord port authority model in Kenya	• Delays in expanding port capacity • Costs associated with port inefficiencies	• Revise Kenyan Ports Authority Act to establish a landlord port authority	• Review of KPA Act withheld instead services delegated to CFSs and expansion of Port through construction of new berths and second container terminal accelerated. • Port Stakeholder Charter launched under SCEA Chairmanship to improve services • Centralisation of port related activities under charge of KPA effected • Construction of Lamu Port commenced • Upgrade of electronic clearing system to allow pre-arrival clearance and bond cancellation on 1st November 2013
Competition regulation	• Framework for port economic regulation developed, but not yet operational • Development of private monopolies	• Potential abuse of dominant position by monopolistic service providers / rent-seeking behavior • No competition to moderate pricing of port services • Discouragement of private investment	• Implement legislation to provide a framework for independent port regulation and develop capacity to oversee port pricing, access issues and arbitrate disputes between service providers and customers	• Initiative resisted
Identification and preparation of PPP projects	• See “Road Infrastructure” • above	• See “Road Infrastructure” above	• See “Road Infrastructure” above	•

(Source grey areas: Nathan Associates 2011 p. xviii)

Background on the Nathan Associates' (2011) recommended actions on EAC regional co-operation agreements

Implementation of Inland Waterway Protocol

To date, the EAC states have not taken steps to implement the Inland Waterway Protocol. Due to the limited commercial activity on inland waterways, the lack of implementation probably does not pose a significant constraint at present. However, the Protocol provides a common regulatory framework which can be usefully applied once inland waterway traffic picks up.

R 1: EAC states to adopt measures to implement the Inland Waterway Protocol.

Transformation of the Kenya Ports Authority into a landlord port authority

Under the 1978 Kenya Ports Authority Act, the KPA is set up as a service port acting both as landlord and provider of port services such as terminal operation and stevedoring. Kenya's new transport policy recognizes that this is an inefficient arrangement and that the legislation must be changed to include appropriate provisions to encourage greater private sector participation in ports. Due to the prevalence of natural monopolies in ports, there is a parallel need to ensure that a framework for economic regulation – which is in the process of being created – becomes operational as soon as possible.

R 2: The Kenya Ports Authority Act must be revised (or repealed) to transform the KPA into an autonomous landlord port authority with a clear mandate to privatize port services through PPP arrangements, will retaining responsibility for infrastructure and safety and environmental oversight. At the same time, the economic regulator which is being set up must assume responsibility to regulate port pricing, access and act as neutral arbiter in the event of disputes between services providers and customers.

Framework for PPP arrangements in sea and inland waterway ports

PPP arrangements in this sub-sector are limited to Kenya and Tanzania. Kenya's PPP procurement rules are the most advanced, but Tanzania has progressed further with implementing a landlord port model and creating a regulatory framework to oversee port concessions. As with other infrastructure sectors, enabling framework for PPPs in Burundi, Rwanda and Uganda are still rudimentary and further legal reform is needed (procurement rules, concessioning and PPP law, economic and safety regulation).

R 3: Implement PPP project identification, preparation and procurement rules and bolster PPP management capacity (as discussed under Road Infrastructure).

(Source: Nathan Associates 2011, p.41)

6.2.4 Road transport

6.2.4.1 Summary and main findings on road transport

Road transport is the mode which receives a lot of attention from the RECs in terms of cross border freight and better market entry on the Northern corridor. Over the last two decades road transport has become the most important surface transport mode for goods and passengers in the EAC member states as a result of poor performance due to non- implementation of REC approved system of administrative control, restrictive customs requirements in Kenya and Tanzania and structural problems in the rail transport mode. There is a policy and legal vacuum in the road transport sector, as measures have not yet been taken to replace the former system of quantitative regulation with qualitative regulation. This situation mostly applies to Kenya and Uganda and to a lesser extent in Tanzania.

6.2.4.2 Burundi

A Policy

The Transport policy of Burundi is included in the sector policy document for transport, postal service and communication which is valid for the years 2006 – 2010. The major road sector constraints are; poor road infrastructure, lack of transport fleet and equipment, physical and administrative constraints on the road corridors and high transport costs.

B Legal Framework

Legislation currently supporting road transport infrastructure and operations is provided in the following table.

Table 6-5 Burundi current legislation on road transport

Area of Legislation	Applicable law
1. Road Infrastructure	• Act No.1/04 of February 2009 **(LOI No1/04)** Law No 1/06 of 10/09/2002 on Financial Resources of The National Roads Fund • Decree No. 100/117 of 27 October 2001 On Statutes Of The National Roads Fund Ordonnance Ministerielle No 720/70
2. Traffic Regulations and Safety Enforcement	• Act No.1/04 of February 2009 **(LOI No1/04)**
3. Vehicle Registration and Driver Licensing	• Act No.1/04 of February 2009 **(LOI No1/04)**
4. Operator Licensing	• Act No.1/04 of February 2009 **(LOI No1/04)** Burundian Environmental Code **LOI no1/010 du juin 2000**

Source : Bureau for Industrial Cooperation, working paper 6,2012

The existing legal framework concerning road transport in Burundi is adequate in the coverage of traffic operations, vehicle registration and driver licensing. The current policy document was time bound and was set to expire in 2010. Overall the following were noted concerning the legal framework;

- The framework is dominated by one principal act No. 01/04 of 2009, which comprehensively covers most road transport operational issues. Other areas covered include road financing and management through the creation of a Roads Office. In the

licensing of operators, the Burundian Environmental code is used to address issues of pollution by road transport vehicles.

- The country does not have its own design standards and specifications; instead it uses international or French standards.

Observed Weaknesses in the Legal Framework

When compared to the policy objectives as well as the overall requirements of harmonisation the legal framework exhibits the following weaknesses

- The transport policy was set to expire in 2010; this might lead to a period when there is no positive guidance for the road transport sector. On the other hand this might provide Burundi with an opportunity to develop a new policy that is complementary to that of the other partner states in the direction of a common transport policy.
- Burundi does not yet have any legislation to accommodate the PPP type of project, thus making it difficult for the private sector to participate in infrastructure development.
- Burundi has a law on axle load control but it has not become operational because of lack of weighbridges.

C Institutional Framework

Table 6-6 Institutional Framework for Road Transport in Burundi

	Policy and coordination		Agencies for sector regulation, development & maintenance		Transport services	
	Policy Making	Planning & Coordination	Regulation & Enforcement	Infrastructure Dev.& Mtce.	Financing	Transport Services
Ministry of Transport Works & Equipment	Yes				Yes	
Roads Office			Yes			
Directorate of Internal Transport	Yes				Yes	
Directorate of External Transport	Yes				Yes	
Road Fund Board			Yes			
Police Department			Yes			
Ministry of Land-plan & Environment			Yes			
Burundi Revenue Authority			Yes			

Based on information from the available documents it can be seen that there is a reasonable institutional framework to implement the transport policy. Policy making is handled by the Ministry of transport, works and equipment which also handles planning and coordination through the directorates of internal and external transport.

The classified national road network (4,800 km) falls under the Ministry of Transport, Public Works and Equipment and is managed by its agency namely the Roads Office (Office Nationale des Routes). The Roads Office handles the road development and maintenance while financing for road maintenance is

provided by the Road Fund (the Fonds National Routier). The road fund is primarily funded by the fuel levy and other resources contributing to the fund are import duties on vehicles and driving license fees.

Other regulatory organisations include the Police department for traffic safety, Ministry of Land-plan and Environment for environmental impact assessment and Burundi Revenue Authority for axle load regulation shows the current road transport organisations in Burundi.

D Proposed Areas For Harmonisation And Improvement

POLICY: Burundi should embark on a comprehensive review of its National Transport Policy since the current one has expired. The proposed new policy should contain the following as a minimum:

- The goals and programmes of the proposed policy should be in harmony with those of the other EAC states. The proposal should also take into account existing regional instruments such as the common market protocol and the Tripartite Agreements on Road Transport and Inland Waterways.
- The new Burundi policy should include strategies and measures aimed at implementing the existing decision and agreements of the EAC states.
- It should advocate for the creation of a road transport sector regulator as well as the involvement of the private sector in road infrastructure investments.

LEGAL FRAMEWORK: Burundi should work to enact the following legislations aimed at improving the road transport sector and harmonising it with other EAC states.

- Adopt the newly proposed EAC act on overload control management that is being finalised.
- Enact a law to regulate the participation of the private sector in road infrastructure development.
- Enact a law to harmonise the regulation of the road transport sector in line with the current Tanzania's law.

INSTITUTIONAL FRAMEWORK: In line with the proposed harmonisation and improved measures above, it is proposed that the following organisation should be created:

- An organisation to implement the road transport regulatory measures proposed by the above mentioned act.
- An organisation to carry out road safety research, training and data collection made possible by some amendment of the act 01/4 of 2009.

6.2.4.3 Kenya

A Policy

Kenya has a well documented integrated transport policy which should inform the type of legal and institution framework the country needs. The vision of the policy and its mission are summarised below:

- **Vision:** "A world-class integrated transport system responsive to the needs of people and industry"
- **Mission:** "To develop, operate and maintain an efficient, cost effective, safe, secure and integrated transport system that links the transport policy with other sector policies, in order to achieve national and international development objectives in a socially, economically and environmentally sustainable manner"

The following are the highlights of the policy

- Clarification of the roles of the central and local governments, statutory bodies, non-governmental bodies, and the private sector in the delivery and management of transport infrastructure and services,
- User pays and polluter pays principles to facilitate economic efficiency, generation of sufficient revenues to support development, operation and maintenance of transport infrastructure and services, eliminate distortions in user choice of transport modes, eliminate to the extent possible externalities in production and consumption e.g. pollution and congestion,
- Stakeholder consultation in setting of tariffs and other prices,
- Financing of economic infrastructure through user charging or cost recovery from direct users,
- Financing of social and strategic infrastructure through subsidisation on a declining basis over time,
- Institutionalisation of Regulatory Impact Analysis to enable assessment of regulatory proposals.

B Legal Framework

The transport sector is governed by numerous statutes that fall under two broad categories, namely;

- statutes affecting all sectors of the economy and
- sector-specific legislation

Many of the sector-specific laws are outdated and require urgent review to facilitate the effective operations of the entities they govern and to enhance harmony in the transport sector. Relevant laws governing road transport are currently being amended and still many more require amendments in order to bring them in line with the goal of the transport policy.

The following table shows the legislation coverage for the most important areas of road transport infrastructure and operations.

Table 6-7 Kenya current legislation on road transport

Area of Legislation	Legislation
1. Road Infrastructure	• Kenya Roads Act, 2007 • Kenya Roads Board Act, 2000 • Road Maintenance Levy Fund, 1994 • Public Road Toll Act, 407. • Public Procurement and Disposal (PPP) Act
2. Traffic Regulation and Safety Enforcement	• Road Traffic Act 1975, Cap 403
3. Vehicle Registration and Driver Licensing	• Road Traffic Act 1975, Cap 403
4. Transport Operator Licensing	Transport Licensing Act, 1979, Cap 404

Source: Bureau for Industrial Cooperation, working paper 6, 2012

The current legal framework to a large extent aim at progressive improvement in road transport efficiency and a possible lowering of transport costs. It adequately covers the policy requirement for road infrastructure funding in that it provides for sources of funds from user charges (fuel levy) and direct recovery from users (tolls). The legislation in this area also puts in place the mechanism for the collection and disbursement of funds through the Kenya Road Board and the respective executive agencies (KeNHA, KURA, KeRRA).

The enactment of the Public Procurement Act has completed the framework in the infrastructure sub-sector by laying down rules governing the identification of PPP projects, their preparation, bidding and management of PPP contracts. The overall objective of the Traffic Regulation and Enforcement is to promote and enhance road Safety. To this end the Traffic Act 1975 of Kenya has in place stringent requirements for compliance by owners, operators and users of vehicles geared to ensuring safety, security and disciplined mobility on the roads. The act includes;

- Registration of Motor Vehicles,
- Driving licenses, permits, driver training and testing, traffic signs & signals
- Insurance requirements
- Use and Control of passenger Service vehicles (dimensions, weight and construction)
- Licensing of motor vehicles
- Speed limits
- Annual inspection of passenger vehicles
- Enforcement Regime: The role of the Police Force

The legal framework governing road transport operations in Kenya is provided by Transport Licensing act, which among other things require that all commercial vehicles for carrying goods or passengers for hire or reward be licensed. Currently, the Ministry of Transport's functions relating to the registration and licensing of vehicles have been transferred to the Kenya Revenue Authority (KRA).

The functions transferred to the KRA include the licensing of commercial goods and passenger vehicles. *The licensing of goods vehicles previously undertaken by the Transport Licensing Board (TLB) was abolished.*

Observed Weaknesses in the Legal Framework

When compared to the policy principles for the road transport sector and the aspiration of the East African Community there are certain gaps in the legal framework that need to be dealt with. These gaps are in the following areas:

- Lack of an independent regulator for (road) transport services: The policy proposals envisaged a role for an independent regulator to enable stake-holder's participation in setting of tariffs and other prices. An independent regulator could also be responsible for licensing instead of a government department that may be involved in policy formulation.
- There is a need for to carry out regulatory impact analysis of regulatory proposals.
- There is no new legislation to harmonise axle load and gross vehicle weight for all the partner states. This law which would include an administrative system for overload control has not been enacted because of lack of agreement between partner states on current proposals. Instead Kenya has opted through Presidential directives and subsequent gazette notices by the Cabinet Secretary for Transport to domestic that aspect of the law regarding axle load and weigh bridge management in June 2013. The danger here is that as a gazette notice it lacks Parliamentary protection and can be removed by another gazette notice arbitrarily.

C Institutional Framework

Kenya's integrated transport policy has set out the following as the most important of objectives for institutional reform in the road sector.

- Appropriate linkages/working mechanisms between the Ministry responsible for Roads, Road Agencies, Kenya Roads Board and Development Partners shall be established within the Roads Sub-Sector to enhance service delivery.
- Stakeholders' participation shall be encouraged at all levels where road development, rehabilitation and maintenance are undertaken.
- Deliberate efforts will be made to build capacities (both institutional and human) in the Roads Sector, and
- Deliberate and sustained effort shall be made to strengthen governance in the Roads Sector.
- The Ministry will endeavour to register all road reserves with a view to protecting them from encroachment.

With regard to the integrated transport policy the current institutional arrangement is still not adequate in the following key areas:

- Lack of an overall regulator for the economic efficiency of road transport sector to regulate market entry, eliminate distortions in user choice of transport modes (NMT and IMT services) and promote stakeholder consultation in setting of tariffs and other prices.
- There is no institutional arrangement for Regulatory Impact Analysis to enable assessment of regulatory proposals for the sector.
- No appropriate working mechanism has been set up between the Ministry responsible for Roads, Ministry responsible for Transport, Road Agencies, Kenya Roads Board and other stakeholders to enhance service delivery in the Roads Sub-Sector.

Table 6-8 Institutional Framework for Road Transport in Kenya

	Policy and coordination		Agencies for sector regulation, development & maintenance		Transport services	
	Policy Making	Planning & Coordination	Regulation & Enforcement	Infrastructure Dev.& Mtce.	Financing	Transport Services
Dir. of Transport	Yes				Yes	
Min. of Roads	Yes				Yes	
KeNHA			Yes			
KeRRA			Yes			
KURA			Yes			
KRFB	Yes				Yes	
KRA	Yes				Yes	
TRB			Yes			
Traffic. Police			Yes			
NEMA			Yes			
NARSC			Yes			
MV Inspection			Yes			

Source: Bureau for Industrial Cooperation, working paper 6, 2012

D Proposed Areas for Harmonisation and Improvement

POLICY: Kenya should develop strategies and measures to strengthen the implementation and monitoring mechanisms in respect of transport agreements under COMESA, EAC, and other bilateral and multilateral agreements.

LEGAL FRAMEWORK: Kenya should enact and support the enactment of the following laws in order to implement its transport policy and be in harmony with other member states:

- Enact legislation for the creation of a land transport industry regulator as proposed in the current policy and as already done in Rwanda and Tanzania. This act will create an appropriate framework for the regulation of international and domestic road transport and should be supported by an appropriate institutional framework.
- Support the newly proposed EAC bill on overload control management that is being finalised.
- Support the proposed EAC bill on vehicle legislation and licensing

INSTITUTIONAL FRAMEWORK: In line with the proposed harmonisation and improved measures above, it is proposed that the following organisation should be created:

- An organisation to implement the road transport regulatory measures proposed by the above mentioned act.

- An organisation to carry out road safety research, training and data collection, this type of organisation is proposed in the policy and is similar to that proposed by the Traffic Acts of Uganda and the draft traffic & safety act for Tanzania.

6.2.4.4 Rwanda

A Policy

Rwanda has in place a national transport policy articulating the vision and mission of the country as follows:

Vision of the Transport Sector: The vision of the Government of Rwanda on the issue of transport is to realise a modern infrastructure, cost effective and quality services with due regard to safety and environmental concerns. The infrastructure should be developed in a sustainable manner to support economic growth of the country and serve as a "pivot" for exchange of goods and services at national and regional level.

Mission of the Transport Sector: The mission of the transport sector is to contribute towards the realisation of the economic development and poverty reduction objectives, by the establishment and rational management of transport infrastructure and services. This will encourage economic growth and create an enabling environment for the development of socio-economic interactions, employment creation and the well-being of the population.

Highlights of the Transport Sector Objectives

The specific objectives are as follows:

- Strengthen the institutional framework and capacity of transport institutions and stakeholders in planning and management of the sector.
- To reduce and control transport costs.
- Assure the quality and durability of the rural, urban and international transport network.
- Improve safety for goods and passengers on the principle modes of transport.
- Establish a system to ensure sustainable financing of road maintenance.
- Facilitate access to cost effective transport services.

Strategies: In order to achieve these objectives, the principal strategic axes which will guide the actions to be implemented are as follows:

- Involvement of the private sector so that it can play a more important role in the development of the sector
- Harness support from decentralized entities so that they can assume their responsibility in management of the sector within the framework for establishing the policy of decentralization.
- Encourage the participation of local communities in the management of the sector, particularly in the maintenance of roads and tracks through the endorsement of works contracts with associations composed of people from neighbouring areas.
- Take into account the regional dimensions and process of integration which is in progress, in order to develop a transport sector that will benefit from opportunities offered and which responds to the challenges of the regional context.
- Reinforcement of the institutional and human resource capacities to build a viable transport sector, prepared to take up the challenges of the future.

B Legal Framework

Rwanda has enacted legislation in most key areas to assist in the implementation of its National Transport Policy. The table below shows the legislation in the key areas of road transport:

Table 6-9 Rwanda current legislation on road transport

Area of Legislation	Legislative Acts
1. Road Infrastructure	• Rwanda Roads Act, 2009 • Road Maintenance Fund (Law no. 52 of 2006)
2. Traffic Regulation and Enforcement	• Presidential Decree no 85/01 (Traffic Police and Road Traffic)
3. Vehicle Registration and Driver Licensing	• Presidential Decree no 85/01 (Traffic Police and Road Traffic)
4. Transport Operator Licensing	• Law 39/2001 creating RURA

Source: Bureau for Industrial Cooperation, working paper 6, 2012

The Road Act, 2009 covers all issues of road infrastructure including apportioning of administrative responsibilities. Road Maintenance Fund created in 2006 deals with the mobilisation of funds for road maintenance of all roads.

Presidential Decree no 85/01 deals adequately with all issues of traffic regulation, enforcement, vehicle and Driver licensing.

Observed Weaknesses in the Legal Framework

The following weaknesses were observed in the current legal framework for road transport in Rwanda.

- There is no legislation for regulating the private sector participation in infrastructure development through the PPP approach, specifically there is no legislation authorising private toll collection.
- There is need to harmonise axle load limits with partner states and adopt uniform overload control.
- Although the policy is very clear concerning the regional dimensions and process of integration within the EAC states, no concrete measures and strategies have been developed to domesticate the various agreements and protocols on road transport.

C Institutional Framework

The framework shows the institutional arrangement for road transport in Rwanda. Overall there are a sufficient number of organisations to implement the current policy except in the few areas identified below:

- There is also no institutional for the coordination of safety and development of safety measures and standards, apart from the National Police who are there to enforce the existing laws.

Table 6-10 Institutional Framework for Road Transport in Rwanda

	Policy and coordination		Agencies for sector regulation, development & maintenance		Transport services	
	Policy Making	Planning & Coordination	Regulation & Enforcement	Infrastructure Dev.& Mtce.	Financing	Transport Services
MININFRA	Yes				Yes	
MINALOC			Yes			
Kigali City Council			Yes			
District Authorities			Yes			
Road Maint. Fund			Yes			
RTDA	Yes				Yes	
RRA			Yes			
RURA			Yes			
National Police			Yes			

Source: Bureau for Industrial Cooperation, working paper 6,2012

D Proposed Areas for Harmonisation and Improvement

Based on the analysis of the relevant policy, the existing situation and the best practices for the road transport sector discussed in chapter 2, the following areas are proposed for harmonisation and improvement.

POLICY: Rwanda should develop strategies and measures to strengthen the implementation and monitoring mechanisms in respect of transport agreements under COMESA, EAC, and other bilateral and multilateral agreements.

LEGAL FRAMEWORK: Rwanda should enact and support the enactment of the following laws in order to implement its transport policy and be in harmony with other member states:

Support the newly proposed EAC Act on overload control management that is being finalised.

Support the proposed EAC Act on vehicle legislation and licensing.

INSTITUTIONAL FRAMEWORK: In line with the proposed harmonisation and improved measures above, it is proposed that the following organisation should be created:

An organisation to carry out road safety research, training and data collection as proposed by the Traffic Acts of Uganda and Tanzania

6.2.4.5 Tanzania

A Policy

Tanzania's integrated national transport policy was adopted in 2003 and has since then become the focus of reforms in that sector. The mission and vision of the policy are as follow:

Vision: To have an efficient and cost effective domestic and international transport services to all segments of the population and sectors of the national economy with maximum safety and minimum environmental degradation.

Mission: Develop safe, reliable, effective, efficient and fully integrated transport infrastructure and operations which will best meet the needs of transport and improve levels of service at lower costs in a manner, which supports government strategies for socio-economic development whilst being economically and environmentally sustainable. Sector weaknesses identified in the policy document include the following:

- Fragmented planning and management responsibilities lacking policy guidance
- Inadequate formalised coordination among principal actors
- Shortage of manpower in planning units
- Non-application of modern planning methodologies and databases
- Inadequate infrastructure for NMT
- Lack of regulatory regime
- Insufficient dialogue between private and public sectors

B Legal Framework

Tanzania has enacted legislation in all key areas of road transport and below shows the legal framework currently in place.

Table 6-11 Tanzania current legislation on road transport

	Legislative Acts
1. Road Infrastructure	• The Roads Act, 2007 • The Road and Fuels Tolls Act (Cap 220), Revised 2006 • Executive Agencies Act, 1997 PPP Act, 2010 • Regulations for Weights, 2001
2. Road Traffic Regulations and Safety Enforcement	• Road Traffic Act, 1973 • Road Traffic & Safety Bill (2010 Draft)
3. Vehicle Registration and Driver Licensing	• Road Traffic Act, 1973
4. Transport Operator Licensing	• Transport Licensing Act, 1973 • Surface and Marine Transport Regulatory Authority (SUMATRA) 2001

Source: Bureau for Industrial Cooperation (BICO), working paper 6, 2012

The legal framework for road infrastructure management is adequate. The road Act 2004 provides for standards and specification for roads, it also assigns management responsibilities for the various classes of roads. Infrastructure financing is provided for through the ROADS TOLLS ACT 1988 which creates the road fund and the Road Fund Board. The Road Traffic Act 1973 takes care of compliance requirements for road users and operators. The Act covers the registration of motor vehicles, driving licenses/ permits.

The new Road Safety policy and the resulting draft bill for the Road traffic and safety act will update the area of safety coordination and planning.

The transport operator licensing act of 1973 provides the framework for operator licensing and while still in operation most of its provisions have been taken over by the Surface and Marine Transport Regulatory Authority (SUMATRA) act of 2001.

Observed Weaknesses in the Legal Framework

The legal framework for road transport in Tanzania has one general weakness which is derived from its outdated transport policy. Because of its age the policy is silent with regard to the latest reform issues such as PPPs, road safety coordination and handling of harmonisation process. In addition the following were observed;

- There is no update of the legislation and regulation on axle loads and vehicle weights including harmonisation with the other partner states.
- There is a need to update the acts that are more than 10 years old, including the Roads Tolls Act 1998, Transport Licensing Act, 1973 and others.

C Institutional Framework

In this section the institutional arrangements for road transport in Tanzania will be reviewed based on the documents available. The current institutional arrangements can be reviewed with respect to how they meet the existing transport policy objectives. In addition the impact of policymaking institutions and policymaking process on the existing institutional arrangements will be made.

Most institutional arrangements are national in terms of their geographical coverage. Given that these institutional arrangements were created for many different reasons over time, it is important to assess them now in terms of the objectives of the National Transport Policy.

- **Planning and Coordination:** The National Transport Policy of 2003 was meant to address the weakness of "fragmented planning and management responsibility and lack of policy guidance". It seems like this problem has not been adequately tackled as policy making is still handled by more than one organisation and no planning guidelines are available to guide them.
- **Regulatory regime:** The 2003 Transport policy was also meant to address the lack of a regulatory regime. An act creating a regulatory body (SUMATRA) was passed in 2001 but up to the present a number of organisation are still carrying out certain regulatory matters namely:
- **MoHA-Traffic Police Division:** Driver licensing
- **TRA:** Vehicle registration and vehicle licensing
- **MoW-Safety & Environment Department:** Environmental and Safety regulation

Table 6-12 Institutional Framework for Road Transport in Tanzania

	Policy and coordination		Agencies for sector regulation, development & maintenance		Transport services	
	Policy Making	Planning & Coordination	Regulation & Enforcement	Infrastructure Dev.& Mtce.	Financing	Transport Services
MoT, Policy & Planning Division	Yes				Yes	
MoW, Policy & Planning Division	Yes				Yes	
PMORALG			Yes			
SUMATRA			Yes			
TANROADS			Yes			
Road Fund Board			Yes			
LGA's (132 Nos)			Yes			
MoHA, Traffic Police Department			Yes			
MoW, Safety & Environment Division			Yes			
DARCOBOA			Yes			

Source: Bureau for Industrial Cooperation, working paper 6, 2012

Others: As per the transport policy a number of sector weaknesses were supposed to be addressed through institutional reforms in such areas as:

- Manpower shortages in planning units
- Inadequate formalised coordination among principal actors
- Insufficient dialogue between private and public sectors

Common Challenges: The analysis also revealed common challenges or weaknesses such as:

- Lack of Mandate: The transport service providers seem like ad hoc arrangement meant to address short term problems.
- Insufficient funding: The funding available does not match the activity areas.

The Way Forward: Before making specific proposals for harmonisation of the road transport sector in Tanzania, it is important to note that there are current ongoing efforts to review the transport policy. The first step in this process has been the preparation of a working paper on transport policy formulation which outlines the process for a review of the process and involves three main steps namely:

- Meeting of all transport sector agencies and ministerial departments (22 Nos.)
- Meeting of all key stakeholders outside the Government
- Approval of the working paper on Transport Policy Formulation

Through this process it is assumed that complex decision conflicts can be handled openly with the policy makers trying to convince all other stakeholders of the government's role and responsibilities under the constitution.

D Proposed Areas for Harmonisation and Improvements

Based on the analysis of the existing transport policy, the existing situation and the best practices for the road transport sector as discussed in chapter 2, the following areas are proposed for harmonisation and improvement in Tanzania.

POLICY: The ongoing policy review should include clear strategies and measures aimed at strengthening the implementation and monitoring mechanisms with respect to transport agreements under SADAC, EAC, and other bilateral and multilateral agreements. This should be seen and understood as a step towards the creation of a common transport policy for the EAC states.

The policy review should also rationalise and incorporate measures that have been implemented since the last policy was approved in areas such as private sector participation, sector regulation, infrastructure financing and the environment.

LEGAL FRAMEWORK: In order to harmonise its legal framework and improve it to meet the needs of the transport sector, the following should be done:

- Support the newly proposed EAC bill on overload control management that is being finalised, and once the bill is passed into law implement it accordingly.
- Support the proposed EAC bill on vehicle legislation and licensing and revise the existing legislations to accommodate the passage of this bill.
- Complete the review of the Road Traffic and Safety act

6.2.4.6 Uganda

A Policy

The Ugandan Transport Sector Policy is for the time being still a draft in a form of a consultant report to MoWT titled "***Transport Sector Draft Policy and Strategy Paper***". Its recommendations are set within the principles of the Government's overall economic policy and strategy and therefore are followed in developing transport plans. The sector vision and mission statements are as shown below:

Vision: To have a reliable and safe infrastructure in works and transport that will deliver timely, quality, cost-effective and sustainable services to the people of Uganda.

Mission: To promote an adequate, safe and well maintained works and transport infrastructure and services, so as to effectively contribute to the socio-economic development of the country.

Key features of the Draft Policy and Strategy Paper

The following features are included in the draft policy and strategy paper;

Transport Services:

- Contribute to increase in trade, employment and economic output,
- Improve access, through improved maintenance
- Provision of efficient inter-modal interchange facilities,
- Promote private sector operation of transport services
- Encourage private sector investment in infrastructure,
- Maintain high quality links through the Northern and central corridors

Modes of Transport:

- Promote equitable treatment of different transport modes
- Promote modal integration
- Establish a plan to guide complementary development of all modes

Planning and Safety:

- Ensure safety of transport networks and operations
- Frequently review sector regulation policies
- Provide safe environment for pedestrian and NMT
- Promote capacity building of local consultants and contractors
- Promote land use transportation planning techniques in urban areas
- Promote the development of Kampala Inland Port
- Ensure that all projects are subjected to EIA

Financing:

- Use internal revenue for current expenditures and donor funding for infrastructure rehabilitation and upgrading
- Simplify customs procedures and costs
- Improve regional cooperation in transport i.e COMESA and EAC

Road Sub-Sector: Within the overall transport policy the road sub-sector has the following objectives:

- The private sector is to play a major role in transport operations while the Government confine its role to policy, planning and regulation.
- Create semi-autonomous agencies to perform specific functions such as management of infrastructure
- Ensure infrastructure maintenance remain organised and well funded
- Local Government authorities should be responsible for the roads in their own areas
- Allow market forces to determine the prices for road transport services
- Set targets for the improved measures such as condition of roads, participation in road works by local contractors
- Establish sustainable and efficient maintenance and rehabilitation regimes
- Take measures to reduce road accidents including the incorporation of safe features in road design
- Enforce axle load legislation through increases in public awareness and provision of additional weighbridges

B Legal Framework

In order to implement the Transport sector policy, Uganda has embarked on the development of a National Transport Master Plan.

Table 6-13 Uganda current legislation on road transport

Area of Legislation	Legislative Acts
1. Road Infrastructure	• Roads Act 1949 (Cap 358) • Uganda National Roads Authority Act, 2007 • The Uganda Road Fund Act, 2008
2. Traffic Regulation and Enforcement	• Traffic and Road Safety Act No. 15, of 1998
3. Vehicle Registration and Driver Licensing	• Traffic and Road Safety Act No. 15, of 1998
4. Transport Operator Licensing	• Traffic and Road Safety Act No. 15, of 1998

Source: Bureau for Industrial Cooperation, working paper 6, 2012

The UNRA act of 2007 provides for the creation of a National Roads Authority as a body corporate that is mandated to manage the national road network in an economic and businesslike manner. The Uganda road Fund Act, 2008 establishes a Road fund for financing routine and periodic maintenance of public roads in Uganda. The fund is to be managed by a Road Fund Board representing both the public and private sectors and with a secretariat responsible for day to day operations.

Road transport operations including the vehicle registration and driver licensing is provided for under the Traffic and Road Safety Act No. 15, of 1998. This is the main law governing road transport in Uganda. It covers licensing of vehicles and drivers, the use of motor vehicles on the road, and control of traffic. It also establishes the Transport Licensing Board (TLB) and National Road Safety Council (NRSC). TLB issues licenses to regulate the use of public service vehicles, and goods vehicles. Vehicle registration is performed by the Ugandan Revenue Authority.

Observed Weaknesses in the Legal Framework

- The road safety policy has not been approved and this complicates the situation as it is not clear whether it gives guidance or not.

- There is no legal provision for a multi-sector transport regulator, as a result no economic regulation of the road transport sector is being carried out.
- Lack of a framework law for guiding the management of the PPPs project process.

C Institutional Framework

The table below shows the institutional arrangement for the management of road transport in Uganda. Most of the organisations focus on planning & coordination (5) and regulation and enforcement (7). Only the ministries of Works and Transport (MoWT) and that of Lands, Housing & Urban Development are involved in policy formulation while funding for road development and maintenance is only handled by the Uganda Road Fund and the Ministry of Finance, Planning and Economic Development.

Table 6-14 Institutional Framework for Road Transport in Uganda

	Policy and coordination		Agencies for sector regulation, development & maintenance		Transport services	
	Policy Making	Planning & Coordination	Regulation & Enforcement	Infrastructure Dev.& Mtce.	Financing	Transport Services
MoWT	Yes		Yes		Yes	
UNRA			Yes			
MoFPED			Yes			
URFB			Yes			
MoLG			Yes			
Urban & District LGAs		Yes			Yes	
MLHUD	Yes		Yes		Yes	
NEMA		Yes			Yes	
TLB			Yes			
NRSC			Yes			
Private Service Providers		Yes			Yes	
National Police			Yes			

Source: Bureau for Industrial Cooperation, working paper 6, 2012

D Proposed Areas for Harmonisation and Improvements

Based on the analysis of the draft transport policy, the existing situation and the best practices for the road transport sector as discussed in chapter 2, the following areas are proposed for harmonisation and improvement in Uganda.

POLICY: The draft Uganda transport policy should include clear strategies and measures aimed at strengthening the implementation and monitoring mechanisms with respect to transport agreements under SADAC, EAC, and other bilateral and multilateral agreements. This should be seen and understood as a step towards the creation of a common transport policy for the EAC states.

LEGAL FRAMEWORK: In order to harmonise its legal framework and improve it to meet the needs of the transport sector, the following should be done:

- Support the newly proposed EAC bill on overload control management that is being finalised, and once the bill is passed into law implement it accordingly.
- Support the proposed EAC bill on vehicle legislation and licensing and revise the existing legislations to accommodate the passage of this bill.
- Enact a law to regulate the participation of the private sector in road infrastructure development.
- Enact a law to harmonise the regulation of the road transport sector in line with the current Rwanda and Tanzania laws.

INSTITUTIONAL FRAMEWORK: In line with the proposed harmonisation and improved measures above, it is proposed that the following organisation should be created:

- An organisation to implement the road transport regulatory measures proposed by the above mentioned act.
- An organisation to carry out road safety research, training and data collection as proposed in the policy.

6.2.4.7 Summary and main findings regarding road transport

Table 6-15 Issues, deficiencies, potential impact and recommended actions re Road Transport: Legal and Regulatory Framework

Issue	Deficiency	Potential impact on Corridor performance	Recommended actions (April 2011)	Update Sub-consultant Consulting (2013)
Road transport efficiency (also see "Regional Co- operation Instruments" below)	• Absence of qualitative regulatory system to guide development of road transport sector • No guidelines or programs to improve operational standards and service quality • No framework for the regulation of intra-modal competition • Protectionist tendencies in member states • Restrictions on commercial presence of foreign trucking firms in Kenya	• Lack of regulation perpetuates poor service quality and lack of safety • Cut throat competition resulting from low entry barriers • Poor risk perception of industry increases capital costs • Proliferation of anti-competitive practices (e.g. cartel formation and price fixing) • Regulation influenced by non- transport related concerns of other ministries and agencies, e.g. customs, police • Introduction of new tariff barriers • Restriction on growth of a regional trucking market	• Implement EAC Tripartite • Agreement on Road Transport • Harmonize road transport policy and adopt a common regulatory regime of qualitative licensing to raise industry standards and improve safety through the adoption of an EAC Road Traffic and Transport Act[355] • Kenya to reconsider its restriction on market access for foreign firms	• Implement EAC Tripartite Agreement on Road transport partially done regarding axle load limits and weighbridge management • Harmonize road transport policy not done but initiative taken under High Level Standing Committee on Roads Boards Agencies • Kenya maintains its restriction on market access for foreign firms • No qualitative regulatory system in rest of EAC except for Tanzania under Sumatra • Revenue Authorities still managing licensing in all countries except Tanzania • No safety research bodies in countries to advise on needs • EAC Transport Strategy 2008-2018 tasked with delivering priority bankable projects to realise implementation of Tripartite Agreement • Legislation very silent on options and modalities of PPPs in sub-sector
Licensing requirements for movement of goods under customs control or transit goods	• Restrictive customs requirements in Kenya and Tanzania limit carriers' ability to optimize use of vehicles	• Sub-optimal vehicle utilization increases transport costs	• EAC to facilitate discussion between stakeholders to phase out licensing of transit vehicles and vehicles carrying goods under customs control (possibly using TRA approach as starting point)	• No action taken though new initiative on Single Customs Territory between Kenya, Uganda and Rwanda could open window for this • Limitation of carriage to transit still in force except for Tanzania

[355] Such as: Mutual recognition of weighbridge certificates ; Mutual recognition of driving licenses and vehicle road worthiness certificates; Mechanisms to manage market share between carriers of the respective participating countries; Mechanisms for exchange of information on permits/license issued and data on transport and traffic offences; and Procedures to bar non-compliant carriers from undertaking cross-border transport.

Issue	Deficiency	Potential impact on Corridor performance	Recommended actions (April 2011)	Update Sub-consultant Consulting (2013)
Commercial vehicle overloading control	• Non-implementation of REC – approved system of administrative control of overloading coupled with economic penalties (except Tanzania)	• Ineffective enforcement • Increased road pavement damage • Increased transport costs • Non-recovery of road damage costs	• Implement REC –approved load limits and adopt system of administrative controls with penalties commensurate with actual road damage by revise national laws or adopting an EAC Act on Vehicle Overloading Control • Implement qualitative regulation (see above) to provide additional enforcement tools to combat overloading in addition to on-the-road enforcement	• Implementation of REC approved load limit now in place but administrative controls not yet introduced except in Tanzania • Introduction of automated weighbridges in Kenya at advanced stage • Private sector engagement in weighbridge management in Kenya in progress • Enactment of EAC One Stop Border Post Act and establishment of pilot One Stop Border Post (OSBP) at Malaba in Kenya with others to follow at Taveta-Holili, Namanga Kanyaru Mutukula opens up possibility of this • The three RECs , sub regional offices, and the member states to engender awareness of importance of overload control, e.g. by publishing brochures, leaflets and installing information signs
Harmonization of axle and vehicle mass limits	• Non-implementation of REC-approved axle mass load and gross vehicle mass load limits	• Increased transport costs • Increased potential for corruption	• As above	• Actions taken in form of "Presidential directives" and gazettements of partial Articles lack protection of legislative seal

(Source grey areas: Nathan Associates 2011 p.xvi, xviii, background see Appendix B)

(a) Road fund boards and road agencies

The development of the regional network has mainly been hampered by insufficient financial resources. In order to address this, the EAC in collaboration with member countries has initiated a development partner-co-ordinated assistance in order to mobilise funds for the development of the corridors. Most of them have set up road funds and road development agencies in order to maintain both the regional and national road networks, including the Democratic Republic of the Congo, Kenya, Rwanda and Uganda. The main source of funding for road maintenance is the fuel levy, while construction and rehabilitation are funded from government budget allocations, borrowing from development banks and funds from cooperating partners. Under the High Level Standing Committee on the East African Road Network, the EAC has facilitated sector reforms which include the formation of Roads Boards/Agencies, 51 participation of private sector, harmonization of regional policies and axle loads control in the road sub-sector. All the Partner States have road fund boards and road agencies.

(b) The East African Transport Strategy and Regional Road Sector Development Program

Prioritisation and harmonization of the cross cutting projects to spur general development has also been one of the areas that EAC states have faced difficulties. In countering this hurdle under the East African Trade and Transport Facilitation Project (EATTFP), EAC received a grant from ADB for the regional components of the project under Customs, Trade and Infrastructure. The objective of the EAC Transport Strategy is to identify regional strategic priorities and resources for transport sector development and operational needs for the medium term in line with EAC development goals. The strategy will be the EAC key planning document guiding the regional policies and investments in the transport sector and roads sub-sector in particular for 2008 – 2018. EAC is in the process of mobilizing resources to prepare bankable projects contained in the Strategy which then can be easily taken up on PPP basis.

(c) The East African Transport Facilitation Project

In order to give momentum to the implementation of the treaties and agreements the East African Transport Facilitation Project was set up as a sub-component of the EATTFP. The objective of the study is to address impediments to and facilitate implementation of the provisions of the Tripartite Agreement on Road transport, in particular to propose a framework for the harmonisation of standards, policies and regulations in the road transport sub-sector.

(d) The East African Road Network Project

The project has the principal objective of improving the efficiency of the regional road corridors by rehabilitating failed sections and upgrading gravel roads to bitumen standard. There are about 94 road links over five transit corridors that are under various stages of development. EAC plays a co-ordination role in monitoring and evaluating the progress of implementation of sub-projects. The Task Force on the EARNP has been meeting regularly to update the project parameters and present status of implementation of national and multinational projects. Projects for Rwanda and Burundi were officially included into the EARNP in May 2008 by the Council of Ministers.

(e) Implementation of axle load limits

The five countries of EAC have finally through local national administrative measures set the load limits at the EAC recommended level although the weakness of this action is that it lacks legislative protection and is vulnerable to change easily depending on the day's dictates.

(f) Weighbridge Management and removal of roadblocks

Similarly to the axle load issue the Kenyan and Ugandan Governments have by administrative presidential directives reduced drastically the number of weighbridges to two and three respectively at the point of departure from the Port of Mombasa and the point of exit and entry into Uganda and exit respectively thereby facilitating faster movement. This coupled with the total removal of road blocks along the route however are also not backed by an overhaul of the Act but by gazette notice and can be as quickly reversed.

6.2.4.8 Summary and main findings regarding road infrastructure

Table 6-16 Issues, deficiencies, potential impact and recommended actions re Road Infrastructure: Legal and Regulatory Framework

Issue	Deficiency	Potential impact on Corridor performance	Recommended actions	Update Sub-consultant Consulting (2013)
Identification and preparation of PPP projects	• Lack of PPP type project identification, preparation and procurement rules	• Poor project preparation • Absence of robust project assessment affects risk perception and increases project cost • Vulnerability of projects to improper influence / lack of proper due diligence • Lack of predictable and transparent PPP procurement framework discourages investor interest • Lack of appreciation on part of government of fiscal risks • Poor project monitoring and oversight	• Adopt PPP project identification, preparation and procurement rules (Burundi, Rwanda and Uganda) • Revise PPP Act to clarify approval stages and institutional responsibilities (Tanzania)	• Enactment of Public Private Partnership Act of Kenya 2012 and Regulations 2013 creates proper framework • Creation of specific Public Private Parnership Department at Norther Corrodor Transit Secretariat gives opportunity for capacity building and guidance • PPP Act Tanzania still not revised but could borrow from comprehensive Kenyan Act
PPP implementation capacity	• Limited institutional capacity • Resource restrictions	• Poor project preparation • Long project development time • Delay in project implementation	• Review options to bolster regional PPP capacity (including investigating option of • establishing regional PPP unit at EAC level to act as a resource centre for regional and national PPPs)	• No action taken yet • New Road Executive Authorities have capacity to contract under Kenya PPP Act and same should apply to Tanzania if regulations are done
Legal framework for road PPPs	• Lack of enabling provisions permitting private toll collection • Lack of clarity regarding project management and oversight	• Delay in implementing road projects requiring private investment • Threat of project failure	• Revise road laws (or adopt new laws) to provide a comprehensive enabling framework for road infrastructure PPPs	• Comprehensive PPP Act regardless of existence of road laws would suffice as it transcends matters of transport

(Source grey areas: Nathan Associates 2011 p.xvii, see Appendix B for background)

(a) Construction of the Nairobi and Eldoret By-passes

The commencement of these projects will greatly reduce the time lost at these two towns where currently transit goods trucks have to pass through the town centers wasting as much as 1-2 hours at each stage that translate to almost a half a day. These would further reduce the non-tariff barriers along the corridor and are anticipated to go along way towards achieving the targeted continouous flow of transit goods between the Port of Mombasa and Malaba border post.

(b) Enactment of the PPP Act Regulations 2013 in Kenya

These regulations comprehensively give the structures and applicable responsibilities in implementing the Act which opens the way for private sector involvement in a more structured and effective manner

(c) The PPP Department of NCTTA

The specific designation of PPP as a program with a mandated officer at the Secretariat will foster development of best practices and assure private sector of a more reliable and effective process to invest. It will also act as an area of building data bank and expert knowledge on the process.

(d) Enactment of the One Stop Border Post Act

The enactment of the EAC One Stop Border Post Act and the setting up of the pilot Malaba OSBP and expected set up of at least six others will go a long way in enhancing the infrastructure along the corridor as it promotes faster and more co-ordinated clearance transactions that increase the speed of transit. The OSBP is a joint and collaborative entity that brings together the different authorities and players involved in transit to facilitate a simultaneous process aimed at reducing duplicity and opportunities for bureaucratic red tape.

6.3 REVIEW IN DETAIL THE CURRENT PROCEDURAL STEPS FOR TRANSIT CARGO, COMPARED TO INTERNATIONAL BEST PRACTICE

6.3.1 Introduction

Along the international trade supply chain there are several activities and documentary processes the cargo goes through before reaching their destination from the supplier. The processes involved in the handling and clearance of cargo along the Northern and Central Corridors of East Africa contributes immensely to the final price a commodity is offered for sale on the market. The past decade has seen the regulators along the Corridors evolving from use of manual processes to automating their processes as one of the ways to expedite clearance of goods along the Corridors.

The wave of modernization sweeping across the region has seen the key stakeholders that are involved in the handling and clearance of goods not only automating their processes but also rationalizing them through removal of the non value adding processes. The automation has seen customs clearing agents submit electronic documents to customs thereby reducing the big volumes of physical documents required of them that used to bedevil the customs clearance processes.

However, the full benefits of automation by the stakeholders involved in the supply chain have not yet been achieved mainly due to lack of interconnectivity of the business systems used by the different stakeholders involved in the handling and clearance of goods. There are still some key stakeholders that are yet to automate who still demand submission of manual documents by the traders or their agents. Furthermore, there are also infrastructure challenges such as unreliable internet and electricity power supplies which is still causing a lot of hiccups in the clearance of goods especially at the key transit nodes along the Corridors.

The processes discussed here are for containerized cargo involved in international trade. The processes highlight the activities performed by the key players in the supply chain in the clearance of cargo in transit. The processes examined are those of the key transit nodes along the Corridors namely, the Ports, border stations and weighbridges. The event of the establishment of the One Stop Border Posts (OSBPs) has seen some of the redundant and repetitive time consuming processes at the border stations eliminated as seen from the flow charts presented below. The trader or his clearing agent still has to make repeat visits to the same regulatory agency during the clearance of goods.

There are several public and private sector stakeholders involved in the process of clearance of goods along the transit corridors namely, ship operators, ports authorities, customs, police, immigration, standards agencies, inland cargo transporters, cargo handlers, customs clearing agents and weighbridge operators.

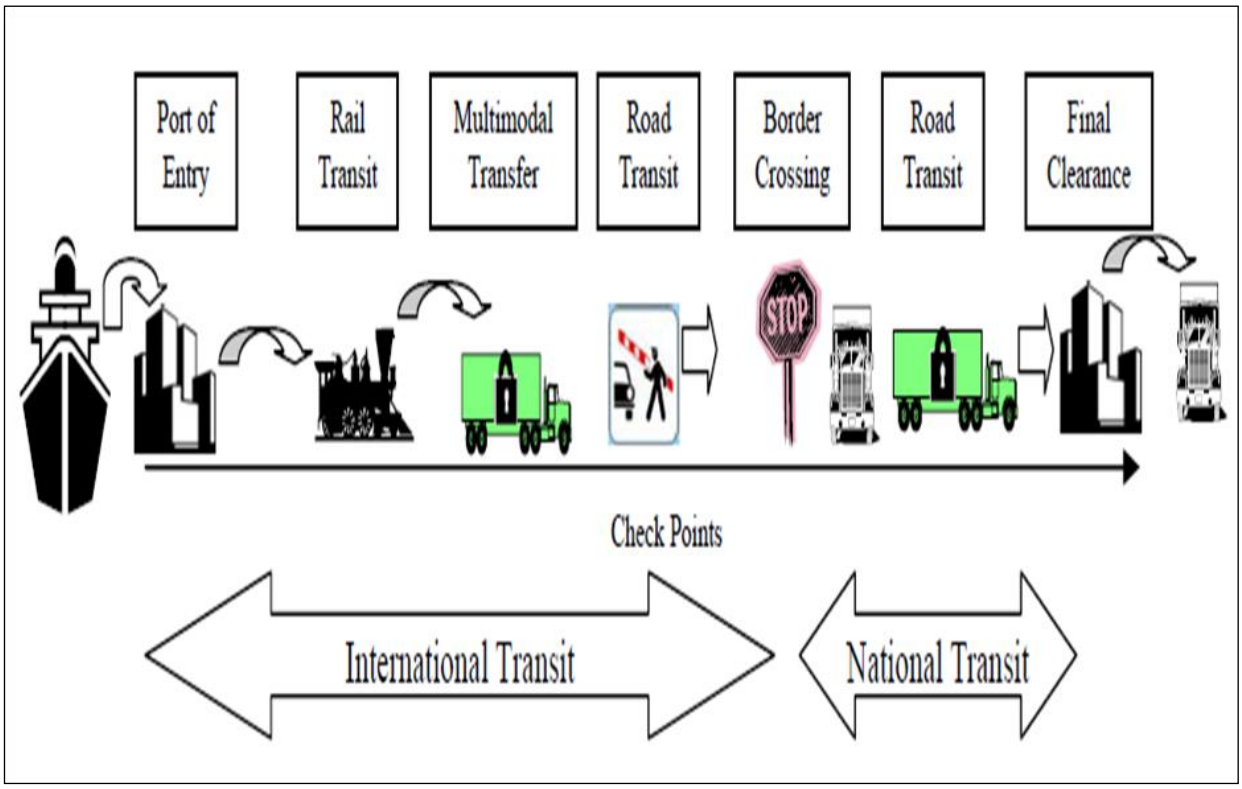


Figure 6-1 Diagrammatical Representation of a Typical Logistics Chain

The procedural processes examined in this document will cover the Mombasa and Dar es Salaam ports processes, the inland border processes and the weighbridge processes.

Methodology involved desk research on materials held by consultant, internet and library. Further data collection was made from field visits to stakeholders' for observation, interviews, discussions, and information material. In addition the following references have been used for this section:

- East African Community Customs Management Act, 2004 amended
- East African Community Customs Management Regulations 2010
- CPCS Comparative Analytical Transport Cost Study of the Northern Corridor.
- East African Community Time Release Study.
- WCO SAFE Framework of Standards Manual.
- USAID-COMPETE Northern Corridor Benchmarking.
- Northern Corridor Stakeholders Surveys of the Northern Corridor Transit Sections Reports.
- Northern Corridor Transport Observatory Reports.
- European Intermodal Association Best Practices.
- Uganda Revenue Authority ASYCUDA Trade Manual
- USAID/COMPETE, cargo Clearance Guidelines: A Simple Guide to Clearing of cargo through the Port of Dar es Salaam, Tanzania
- Tanzania Ports Authority (TPA), Tanzania Development, Vision 2025, Big Result Now (BRN)

6.3.2 Current procedural steps for transit cargo

6.3.2.1 Mombasa Port Processes

The Port of Mombasa is the major transit node of the Northern Corridor. The Northern Corridor is the transport system which links the Great Lake countries of Burundi, DRC, Kenya, Rwanda, South Sudan and Uganda to the Sea Port of Mombasa. The Mombasa Port processes have been divided into four stages to enable their proper understanding due to the multiplicity of public and private sector stakeholders involved in the clearance of cargo at the Port. The four stages are:

a. Pre-arrival of vessels at the Port
b. Arrival and discharge of vessels
c. Documentation
d. Delivery of cargo out of the Port

A Pre-arrival of vessels at Mombasa Port:

There are several activities that are undertaken by stakeholders in preparation for the receipt of vessels at the Mombasa Port. These activities contribute to the expeditious berthing and discharge of vessels calling at the port of Mombasa. A reduction in time taken for a vessel while waiting to berth and a reduction in time taken to discharge a vessel contributes to the reduction in the logistics costs. It also makes the Port attractive to shipping lines. The stakeholders involved in pre-arrival of vessels processes are:

i- **Ships Agents**; Books the Ship with KPA in 14 days before its expected arrival; prepares and submits ships manifest to KRA 48 hours prior to the ships arrival. In case the vessel is to carry exports from Mombasa, the Ships Agent has to submit a pre-advice for exports for the goods and empty containers to be exported 7 days prior to arrival of the ship. The goods and empty containers have to be deposited at the Port prior to arrival of the exporting vessel.

ii- **Kenya Ports Authority**; Produces a 14 days plan for the expected arrival of vessels, nominates Container Freight Stations (CFS's) where the cargo discharged from the vessels is to be deposited pending clearance and produces a berth and working plan 24 hours before arrival of a vessel.

iii- **Kenya Revenue Authority**; Receives and approves the manifest submitted by the shipping lines and transmits it to KPA prior to arrival of the vessel. Activates the manifest in the customs automated business system to facilitate the declaration of cargo by the Customs Clearing Agents prior to the arrival of the ships.

iv- **Traders**; Appoints a Customs Clearing Agent to clear the cargo and submits to the Clearing agent the Negotiable Bill of Lading, Commercial invoice, Packing List; Copy of his/her Passport, relevant certificates where applicable and money for payment of the Shipping Lines, Port and Customs charges where applicable.

v- **Customs Clearing Agents**; The Clearing Agents obtains the documents used in the importation/exportation of the goods from the trader/owner of the cargo to prepare customs declarations/entries.

To minimise storage and demurrage charges the importer is advised to send the documents and funds for the payment of the port charges and any other charges incidental to the clearance of the cargo under concern at least a week prior to the arrival of the vessel for the Customs clearing agent to pre-enter the goods.

The diagram below shows the flow of the processes relating to the pre-arrival of vessels at Mombasa Port.

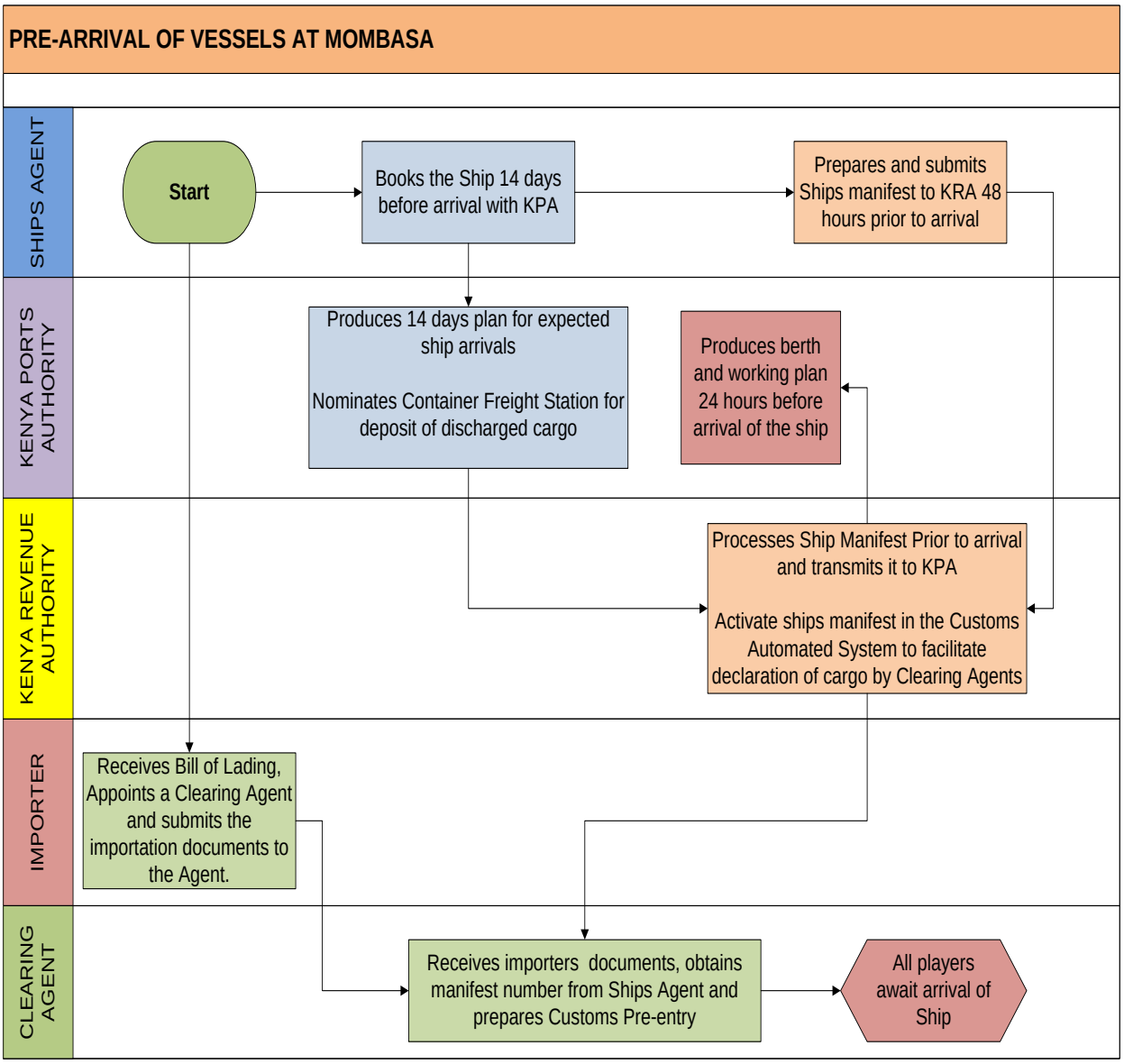


Figure 6-2 processes relating to the pre-arrival of vessels at Mombasa Port

NB: For the low diagrams in this document: The rows highlight the stakeholders that are involved at each stage and within the row relating to that stakeholder it enumerates the stakeholders responsibilities or activities played by the stakeholder.

B Arrival and discharge of vessels

Before a vessel is received at the Mombasa Port, KPA ensures that there is a berth prepared to receive and facilities to discharge the vessel. In the past the time spent by vessels waiting to berth used to contribute on average 8 days of the dwell time at the Port of Mombasa. In the recent past the waiting time for vessels has dropped below 2 days. This has been partly attributed to the heavy investment in infrastructure and cargo handling equipment acquired by the Port, opening up of CFS's to decongest the port which creates room for the deposit of cargo that is discharged from the vessel, automation and rationalization of the redundant processes.

The Stakeholders involved in the arrival and discharge of vessels and their roles are:

i. **Kenya Ports Authority**; KPA provides facilities and services to the vessel such as pilotage, navigation, tugging and berthing of vessel. KPA provides equipment and

manpower to discharge the vessels. The vessels are discharged in the presence of the Ships Agent and KRA. KPA stacks the containers discharged from the vessel in the container yard at the Port and the location where the container is stacked is captured in the KPA automated system.

ii. **Kenya Revenue Authority**: KRA approves the discharge of the vessel and supervises its discharge; KRA also rummages the vessels and seals the ship stores.

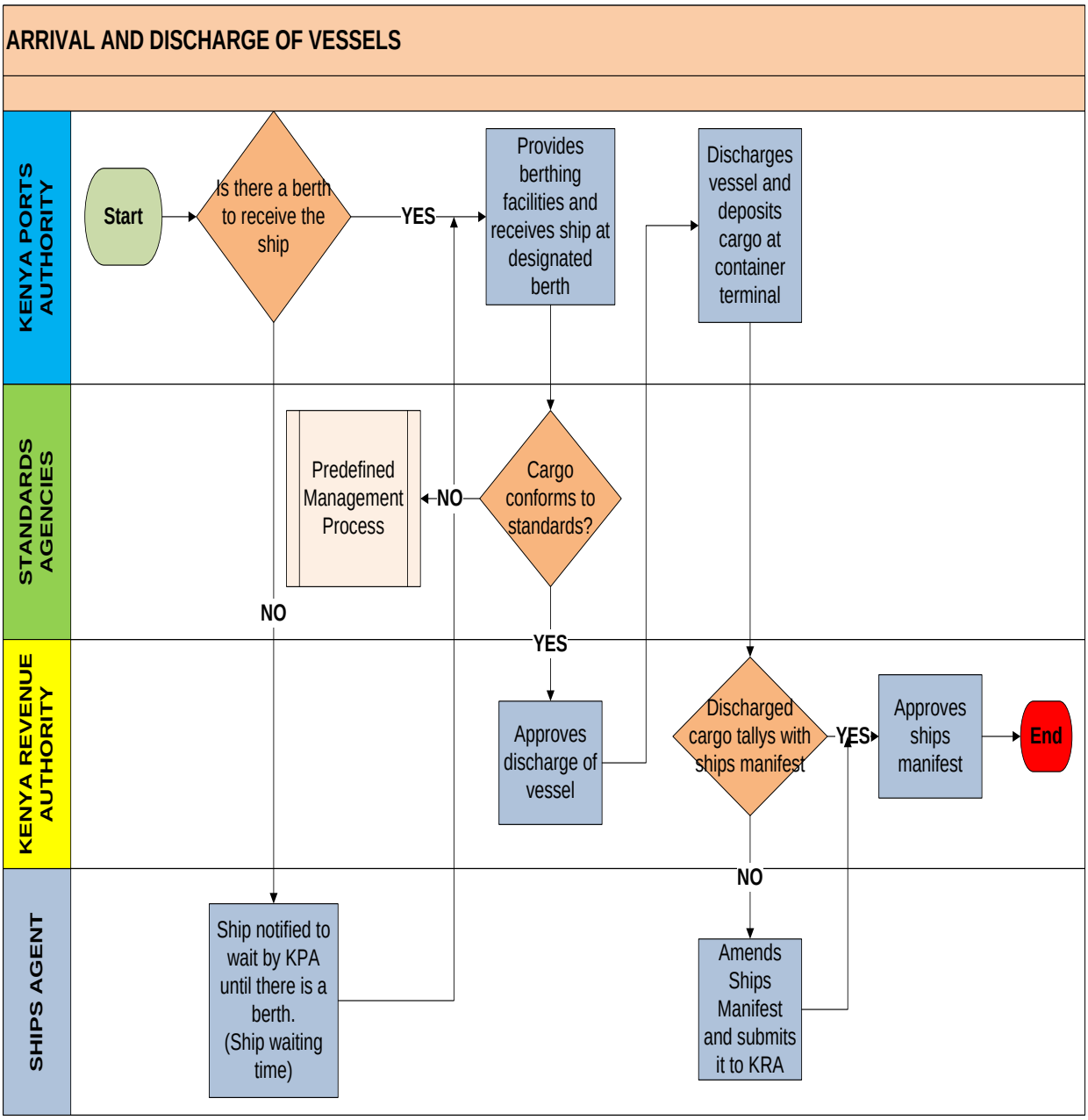
iii. **Standards Agencies**; Port Health gives clearance to the passengers and the crew before dis-embarking from the vessel; KEPHIS carries out preliminary inspection of the cargo on the vessel before issuing clearance to discharge the cargo from the vessel.

iv. **Ships Agents**; The Ships Agents submit the passenger manifest/ parcel list/ ships stores to KRA / Immigration. Ships Agents prepare amendment to manifest where applicable (Form C11). In case of damage to cargo, Ships Agent organizes and conducts a survey of the cargo/containers.

v. **Immigration**; Cargo is moved by people as such the Immigration officers have to process clearance of the crew and passengers on board for entry into Kenya.

vi. **Kenya Police**; Processes the clearance of the vessels armed guards.

The flow of process at arrival and discharge of vessels is highlighted in the flow chart below.



C Mombasa Port Document Processing

The main documentation processes for cargo transported through the Port of Mombasa is by Kenya Revenue Authority and Kenya Ports Authority. The two agencies have automated business systems namely SIMBA and CAMIS for KRA and KWATOS for KPA. There is interconnectivity of the automated systems used in the clearance of cargo by KRA and KPA. Furthermore, other stakeholders have connectivity of the KRA automated systems involved in the handling and clearance of cargo at the Ports of Mombasa such as the Banks, Container Freight Stations (CFS's) Ships Agents, Customs Clearing Agents and Standards Agencies.

The web based KRA automated business systems gives flexibility of the stakeholders to log onto the KRA servers and submit their declarations at any time from any location. However, there are still challenges of network downtimes and poor internet connectivity.

The key stakeholders involved at documentation stage of cargo at the Port of Mombasa are:

i- **Ships Agent**; The Ships Agent prepare and submit a manifest (hard copy) to KRA for approval and for compliance with the law. In case of need to make any changes on the ships manifest the Ships Agent prepares and submits to KRA Form C11 to amend the ships manifest to KRA.

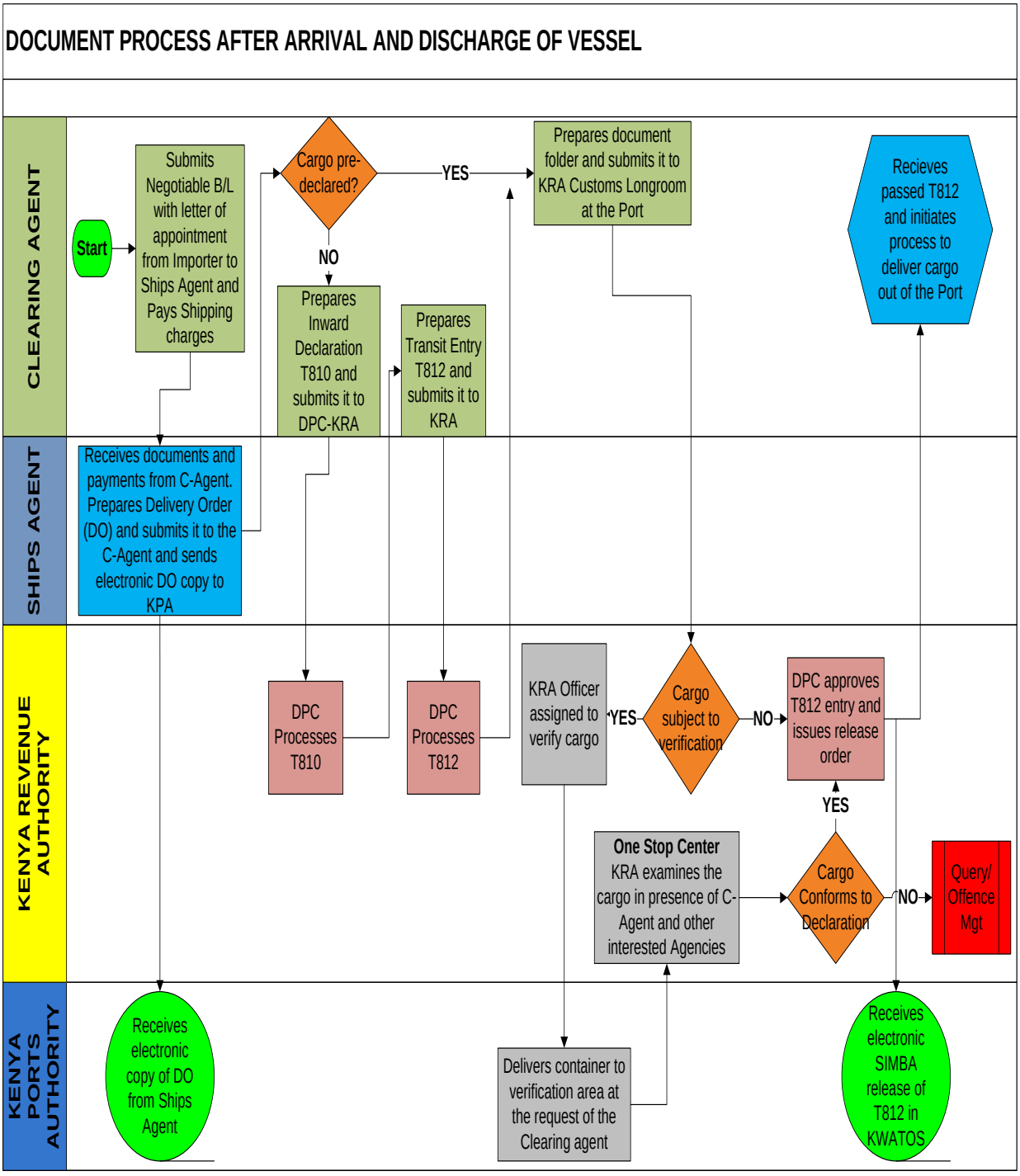
ii- **Kenya Revenue Authority**; KRA approves the ships manifest and amendments to Form C11 where applicable to enable the Customs Clearing Agents to make declarations; KRA supervises examination/scanning of goods targeted for customs examination before approval and release; KRA assesses and collects Customs fees and other dues; KRA processes release orders for the delivery of transit goods from the Port.

iii- **Customs Clearing Agents (C-Agents)**; prepare and submit an electronic customs declaration (entry) to KRA; C-Agents organize for the verification/scanning of the cargo by KRA and other Standards Agencies where applicable before KRA approves the declaration; C-Agent pay taxes/bonds the goods, pays handling and storage charges; C-Agents obtain release orders from Ships Agent, KRA, Standards Agencies and KPA for the goods.

iv- **Standards Agencies**; Inspect and approves/rejects the goods and notifies KRA and Trader/C-Agent.

v- **Banks**; collect taxes and port charges from the traders/C-Agents and electronically notifies/remit returns of the collected taxes/charges to KRA and KPA.

Below is a flow chart showing the flow of activities of the different players in the documentation process.



a. Delivery of Cargo out of the Port

Once the documentation process is complete the main hurdle at the Port lies at the delivery stage of cargo from the Port. It is surprising that on average it takes over two days for the cargo to be delivered out of the Port of Mombasa. The major responsibility for delivery of cargo out of the Port of Mombasa lies with the Importer/Clearing Agent. Nevertheless, there are several small disjointed processes that the Clearing Agent goes through to have the goods delivered out of the Port as seen from the process flow chart below.

The key stakeholders involved at the stage of delivery of cargo out of the Port are:

i- **Customs Clearing Agents**; obtain release orders for the goods from the Ships Agents and KRA; Obtain release orders/position slips for the goods from KPA; Arrange for transport and obtains a gate pass for the trucks from KPA.

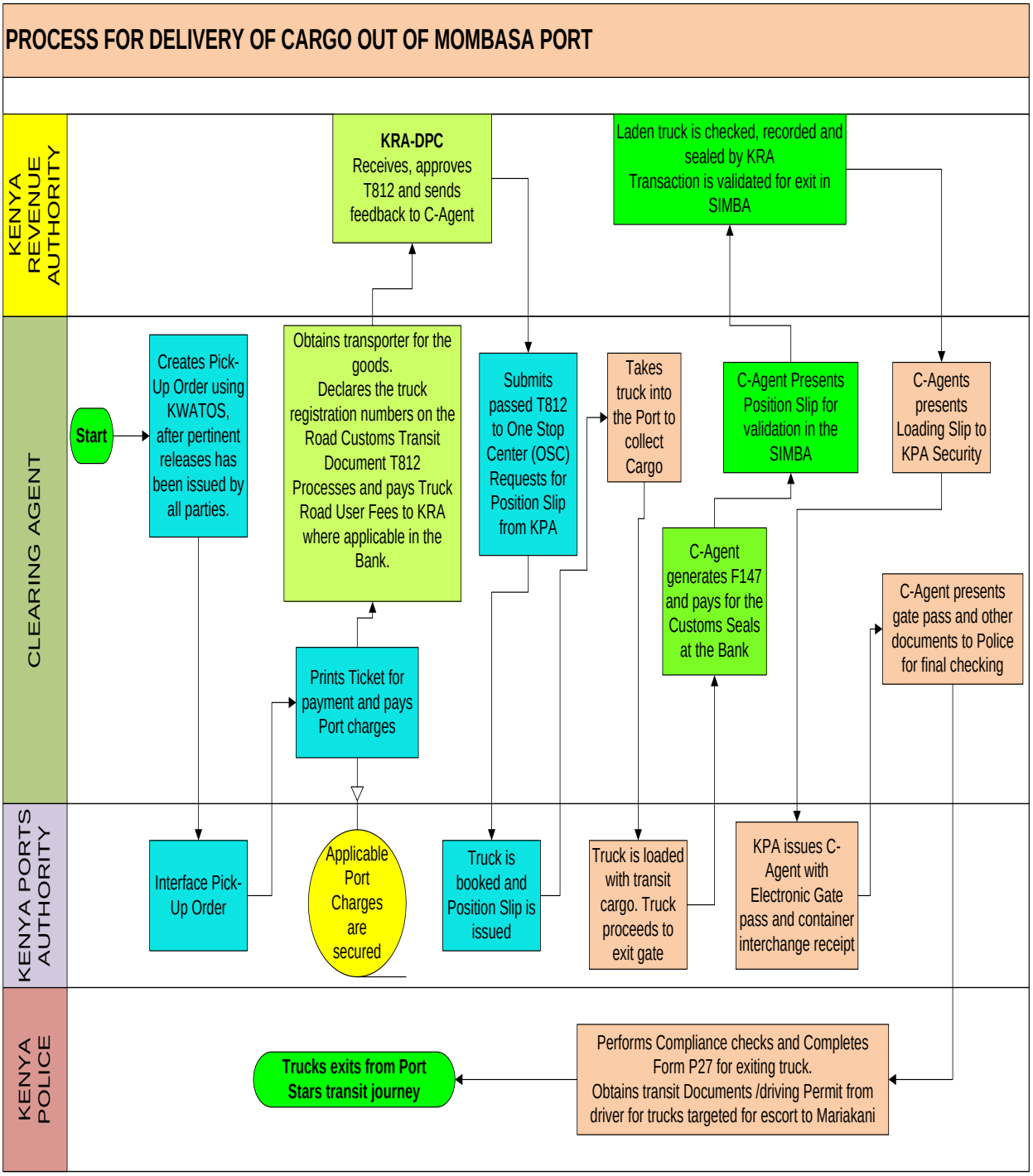
ii- **Ships Agents**; determine and collect Delivery Order fees, container deposit/refund and issue a Delivery Order to the Trader/C-Agent to claim for the goods from the Port/CFS/KRA.

iii- **Kenya Revenue Authority**; processes and issues release orders for delivery of cargo; KRA seals the truck/container and processes exit gate release.

iv- **Kenya Ports Authority**; prepares and issues a position slip/ pick up order for delivery of cargo out of the Port to the C-agent/CFS operator and issues gate pass for trucks to enter the Port; loads the goods on the trucks for delivery and confirms that all the necessary documentation requirements have been fulfilled before cargo exits the Port.

v- **Police**; checks for compliance with the relevant laws administered by Police before cargo is allowed to exit the Port; complete Form P27 for each truck exiting the Port; Prepares a list of trucks to be escorted to Mariakani and obtain the transit documents/driving permits from the drivers.

Below is a flow chart showing the flow of activities of the different players in the delivery of cargo in transit out of the Port.



D Export Process at Mombasa Port

Preparation and Submission of Declaration

- Clearing Agent collects documents from Driver,
- Clearing Agent lodges a T811 (if the document was not prepared at Malaba),
- Customs processes T811,
- Clearing Agent prepares a declaration folder (T810, T811 and supporting documents).

Gate 18 Processes at Mombasa Port

- Truck enters Port with copy of T811 which is verified at the gate against SIMBA,
- Details are captured in KWATOS by KPA and Position Slip issued for location of the container in the yard,
- Truck proceeds to scanning area,

Gate 9/10 Process

- Folder is submitted to Gate 9/10 by Clearing Agent,
- Customs acknowledges receipt in SIMBA,
- Folder is submitted to Exports section for further processing and release to KPA.

Scanning Process

- Truck arrives at Scanner unit and Clearing Agent presents T811 to Customs,
- Customs captures details into SIMBA,
- Consignment is scanned,
- Scanner images are submitted to Exports Office.
- Truck proceeds to the container yard for discharge,

Export Office Process

- Customs examines scanner images against declaration,
- Customs releases cargo to KPA,

KPA Process

- KPA receives cargo and generates port charges bill,
- Clearing Agent pays Port charges,
- KPA creates loading list for container in KWATOS,
- Cargo delivered to quay side for loading onto vessel,
- KWATOS is updated and Customs grants final removal in SIMBA,
- Vessel Departs.

6.3.2.2 Dar es Salaam Port Cargo Clearing Process

The import clearing processes at Dar es Salaam port, with time and potential delays are as summarized in the table below.

Step	Process description	Average time	Potential delays
Pre-lodgment of declaration by CFA	Electronic submission of declarations by CFA to customs	2 hours	• Power interruptions • Lack of professionalism on the side of CFA leading to untimely submission of PAD
Declaration verifications by TRA (customs)	Pre-Arrival Declaration (PAD) verification, classification, and valuation process	1 day	• Submission of improper attachments, • Wrong customs procedure codes • Prompt reply of queries
Provisional & assessment and final assessment	P-PAD issuance and A-PAD assessment and TANSAD assessment	1 day	• Late acceptance of P-PAD • Disputes against assessed value and procedure for resolving them • Wrong HS code and attachment (exemptions authority, permits etc.)

Step	Process description	Average time	Potential delays
CFA and bank payment process	Payment of duty and taxes to the bank and selectivity of the declarations (auto release for Green Channel)	3 hours	• Liquidity position of CFA or importer • Banking transfer process and working hours • Compliance level of the declarant
Delivery of cargo by shipping agents	Delivery order issuance by shipping agents to CFA	1 day	• Geographical location of shipping agent • Manual processes for issuance of DO and mode of payments
Payment of port charges	Lodging of documents for invoice and payments of port charges to terminal operator by CFA	1 day	• Late lodgment of documents (CRD and DO) • Late payment of port charges • Change of status, etc.
Delivery permission	Collection of "EIR" or ''Dos'' for direct/ICD deliveries▪	6 hours	• Compliance level of CFAs and late collection of DO's • Geographical location of DOs issuing offices
Scanning and physical examination by TRA	Scanning for scanner report and physical verification and issuance of Release order	1 hour scanning 1 day physical verification	• Conformance results and efficiency of examiners and integrity issues • Non-working tools, and number of examiners/scanners
Approval for removal or transfers	ICD delivery process	2 days	• Efficiency of the operators and accessibility of port layout and working tools • Cumbersome manual procedures at the gates

Source: TPA, Tanzania Development, Vision 2025, Big Result Now (BRN)

The import and export cargo procedures at the port of Dar es Salaam with documents involve and applicable charges are as given below.

Import procedures

- TPA receives Cargo Manifest electronically from Ships Agent.
- C&F Agent Lodge Custom's Release Order and Delivery Order at TPA's Revenue Office.
- C&F agent collects Invoice from TPA's Revenue Office.
- C&F agent pays relevant port charges to TPA's Bank Account and obtains receipt for payment made.
- C&F agent announces truck for delivery
- Truck proceeds to gate and driver produces valid driving license and truck registration card to TPA's gate attendants and obtains gate-in ticket.
- Truck proceeds to loading point and loads cargo.
- TPA issues gate pass for loaded truck and truck proceeds to check point for inspection and other gate-out formalities.
- Truck proceeds to exit gate, obtains gate-out ticket to exit port gate

Documents involved

- Cargo Manifest.
- Release Order from Customs
- Delivery Order from Shipping line
- Invoice – Payment- Receipt

Applicable charges

- Handling Charges
- Wharfage Charges
- Removal Charges (where applicable)
- Storage Charges (where applicable)
- Customs verification (where applicable)
- Documents Alteration fee (where applicable)

Export procedures

- Receiving Released Shipping Order from TRA.
- Processing Invoice for relevant port charges.
- Payment effected at TPA's Bank Account.
- Shipper announces Truck
- Truck proceeds to gate, obtains gate-in ticket and enters the port
- Truck proceeds to receiving point in the port
- Cargo offloading process at storage area and/or loaded directly to ship
- Empty truck obtain gate-out ticket and exit port gate

Applicable charges

- Handling charges
- Wharfage charges
- Storage charges (where applicable)
- Shut out cargo charge (where applicable)

6.3.2.3 Transit of cargo along Corridors

The Northern Corridor is the transport system linking the Great Lakes countries of Burundi, DRC, Kenya, Rwanda, South Sudan, Tanzania and Uganda to the Port of Mombasa. The Port of Mombasa also serves Ethiopia and Somalia. The Northern Corridor transport infrastructure includes; the road network, railway network, oil pipeline, the inland waterways, and transit nodes such as Ports, CFS;s, ICD's, Road Side Stations, Transit Parking Yards, Weighbridge Stations and Border Stations.

The Northern Corridor Kenya transit section stretches from the Port of Mombasa through Nairobi to the Uganda Border at Malaba via Eldoret and another branch through Kisumu to the Border with Uganda at Busia. The major mode of transport for goods in transit through the Port of Mombasa is by road.

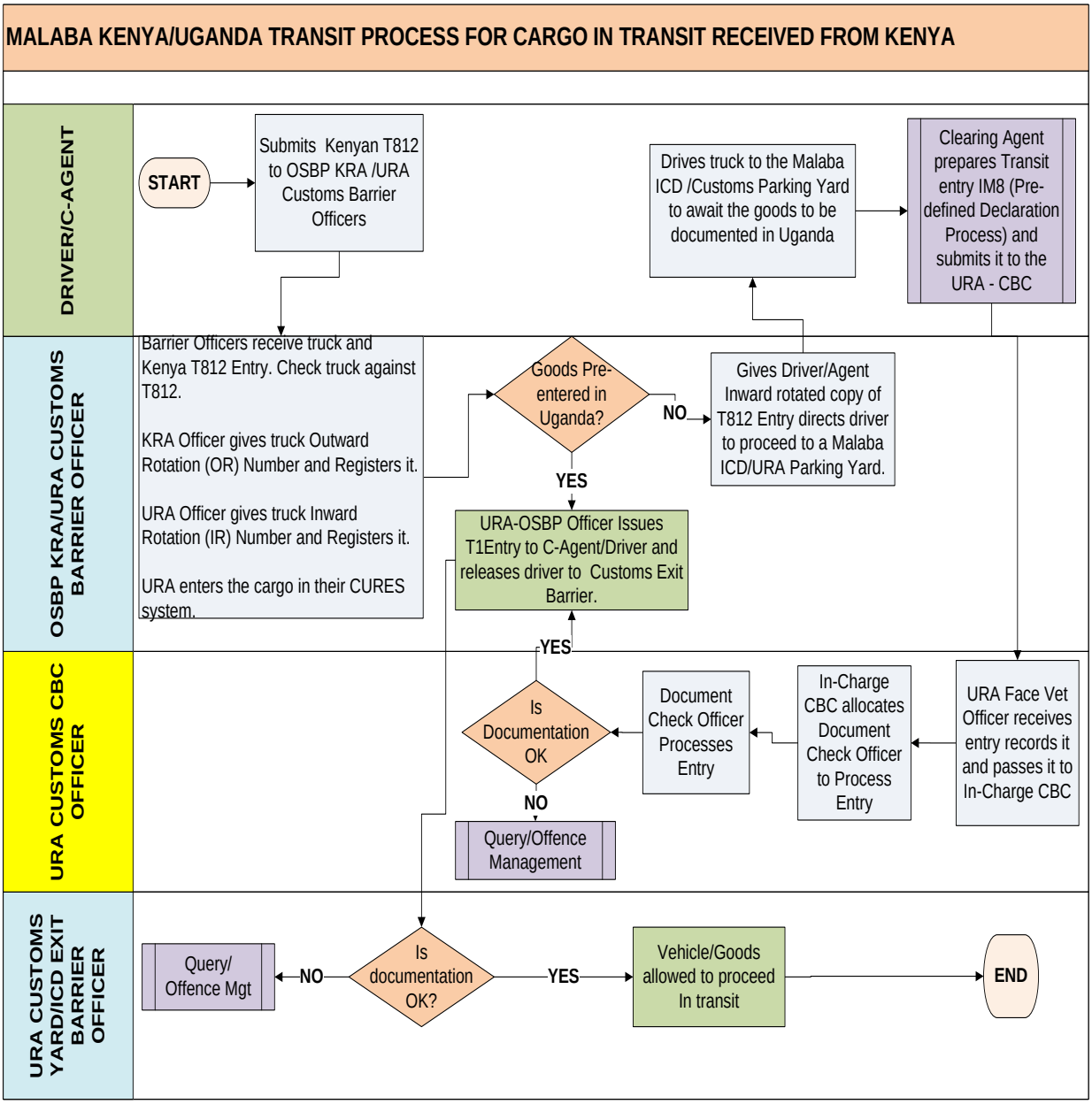
The average transit time from Mombasa to Malaba is 4 days, this has reduced following the intervention by the Presidents in the Region directing the road authorities to weigh cargo in transit only once at the first entry point in the country.

A Clearance of cargo in Transit from Mombasa at Malaba Kenya/Uganda

The Malaba border station is the major transit exit/entry station for cargo in transit through the Port of Mombasa. Over 70% of cargo in transit through the port of Mombasa passes through Malaba. The Customs Authorities of Kenya and Uganda at the Malaba border use One Stop Border Post process to clear cargo in transit from Kenya to Uganda. The OSBP operations have contributed to the reduction in time taken to clear goods by customs at the border on one side and to the strengthening of customs controls as far as checking diversion of goods in transit. The OSBP operations have also reduced the cost and time taken by the traders to have their goods examined by the different regulatory agencies at the border.

The cargo in transit from the Port of Mombasa is received and cleared at the OSBP located on the Uganda side of the Malaba Border. In Uganda the traders through their Clearing agents are required to prepare fresh customs declarations and execute fresh bonds to enable the goods to proceed on their transit journey. In order to minimize the time spent by the trucks at the border the traders/C-Agents are advised to lodge pre-entries for the cargo at Malaba Uganda. The traders make use of information in the RADDeX to prepare pre-entries for the cargo being expected at the Border Station.

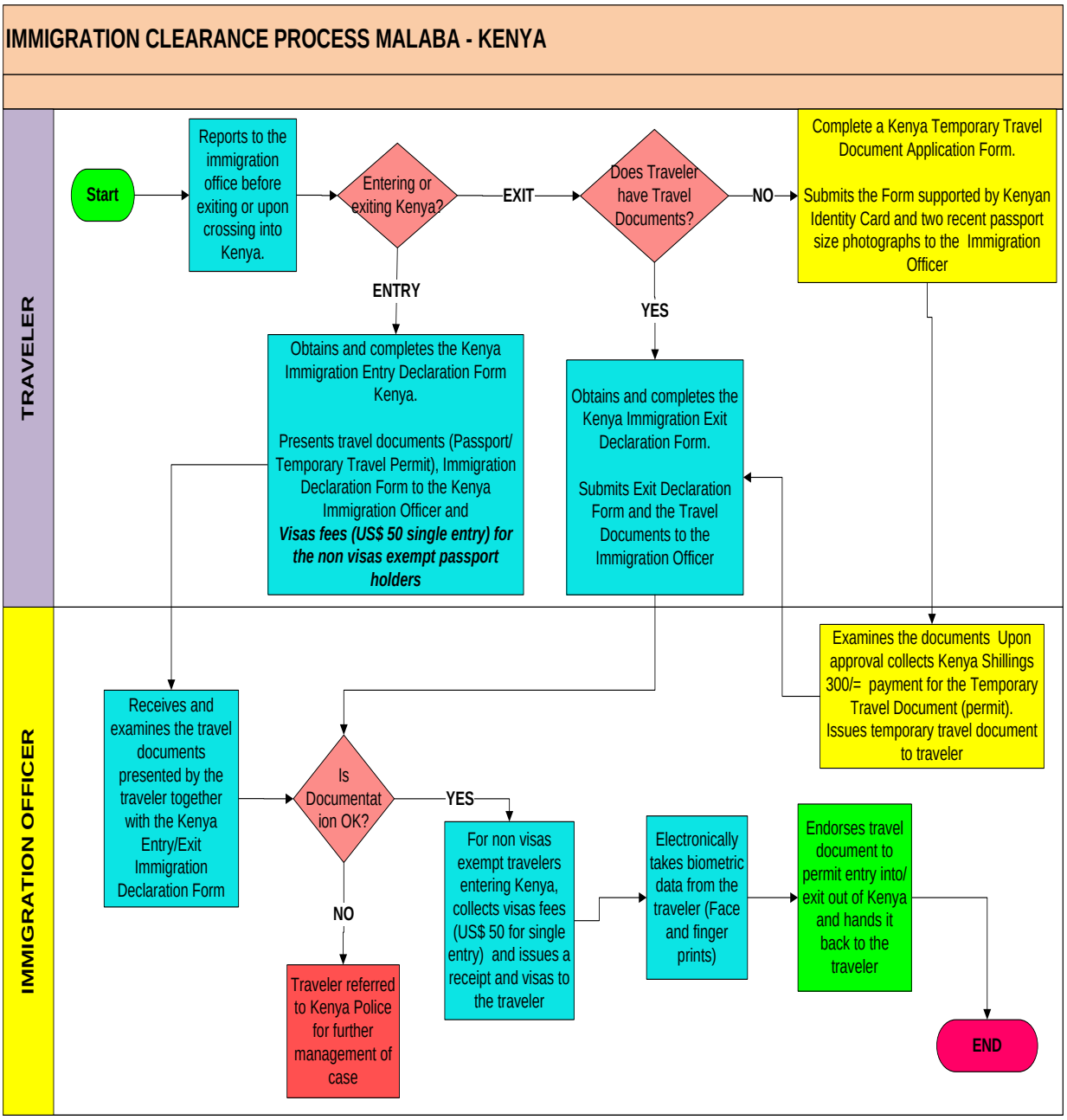
Below is the flow chart for the clearance process at Malaba Border Station.



B Immigration Processes

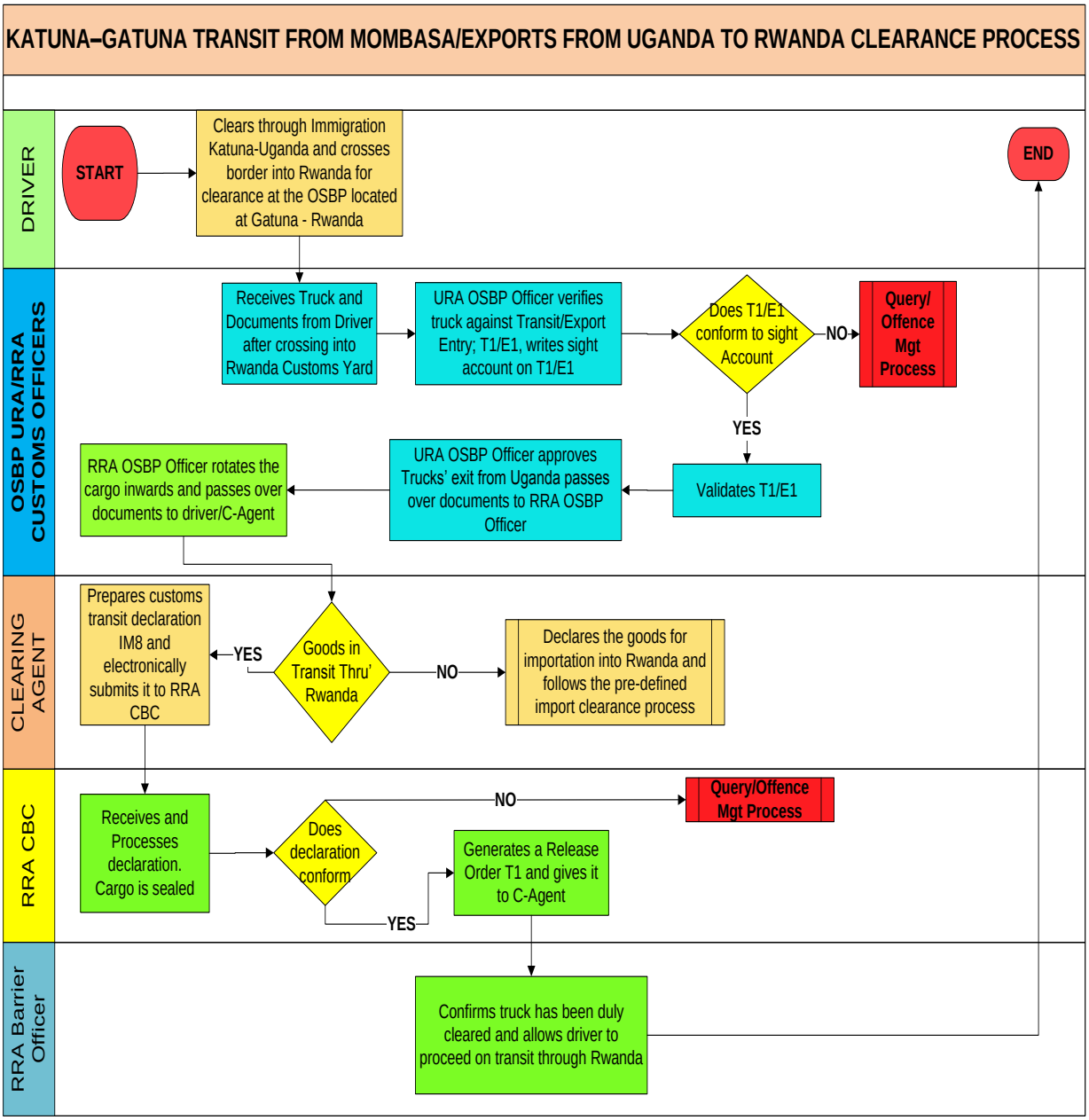
There is minimal intervention by customs and other regulatory agencies made on goods in transit especially if it is found that the customs seals attached at the point of origin are intact. In case of pre-entered goods the time spent at the border by the trucks is normally less than 6 hours. However, other than clearance of goods, it is also a requirement that the drivers clear through immigration when crossing the border from one country to another. Much as the immigration process is simple and takes a few minutes for one to be cleared, the immigration officials have raised concerns about drivers that cross the border and proceed on transit without clearance through immigration.

The process for clearance through immigration at the borders along the Northern Corridor is similar. The diagram below shows a typical clearance process for clearance through immigration at the border stations along the Northern Corridor.



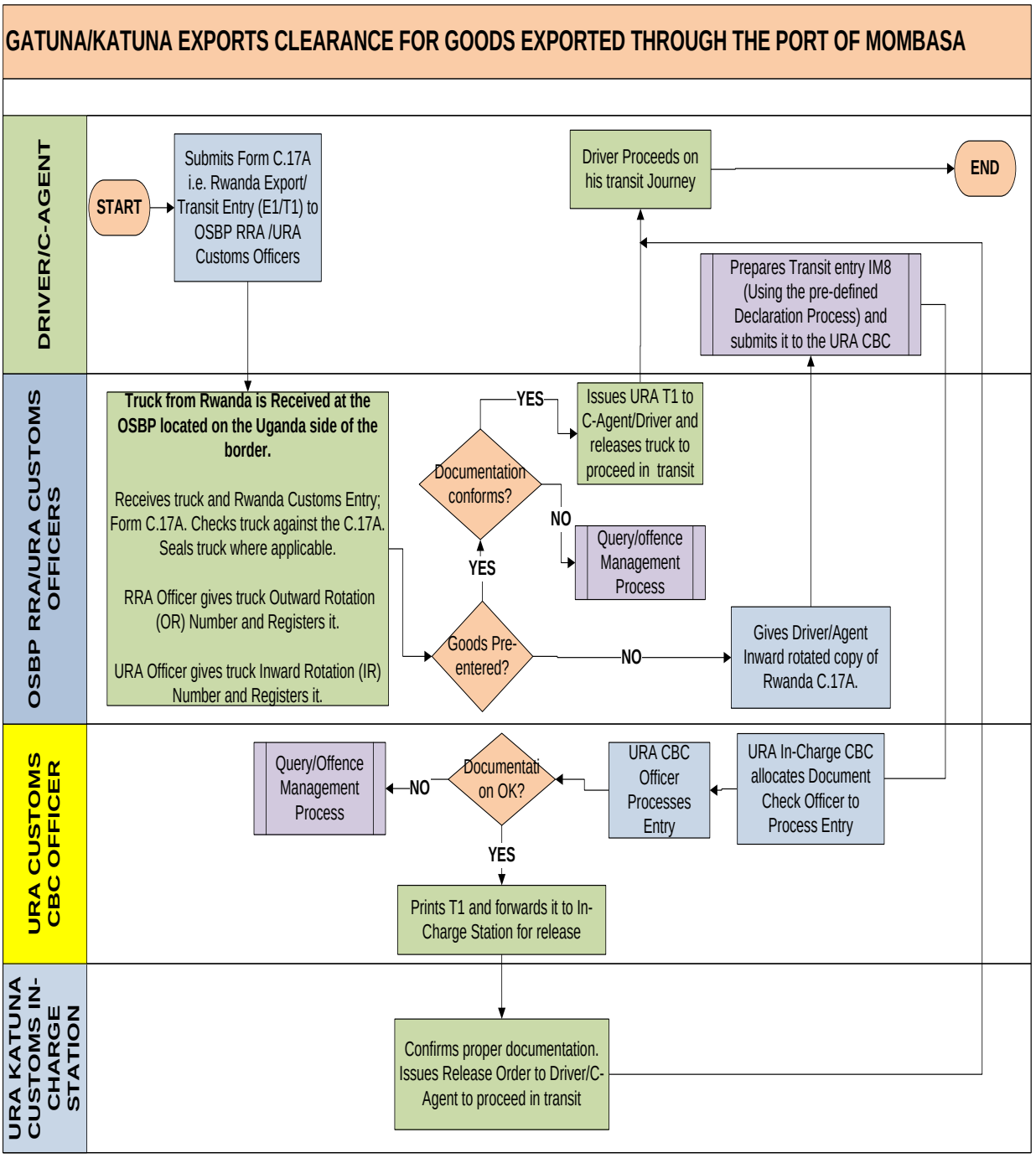
C Clearance of Cargo in transit from Mombasa through Uganda at Katuna/Gatuna Border

When goods in transit exit from Uganda to Rwanda once again the trader/Clearing Agent is required to prepare fresh customs documents and commit a fresh customs bond to cover the goods during their transit journey in Rwanda. Uganda and Rwanda Customs operate a OSBP at Katuna/Gatuna – Uganda/Rwanda border. Below is the process flow.

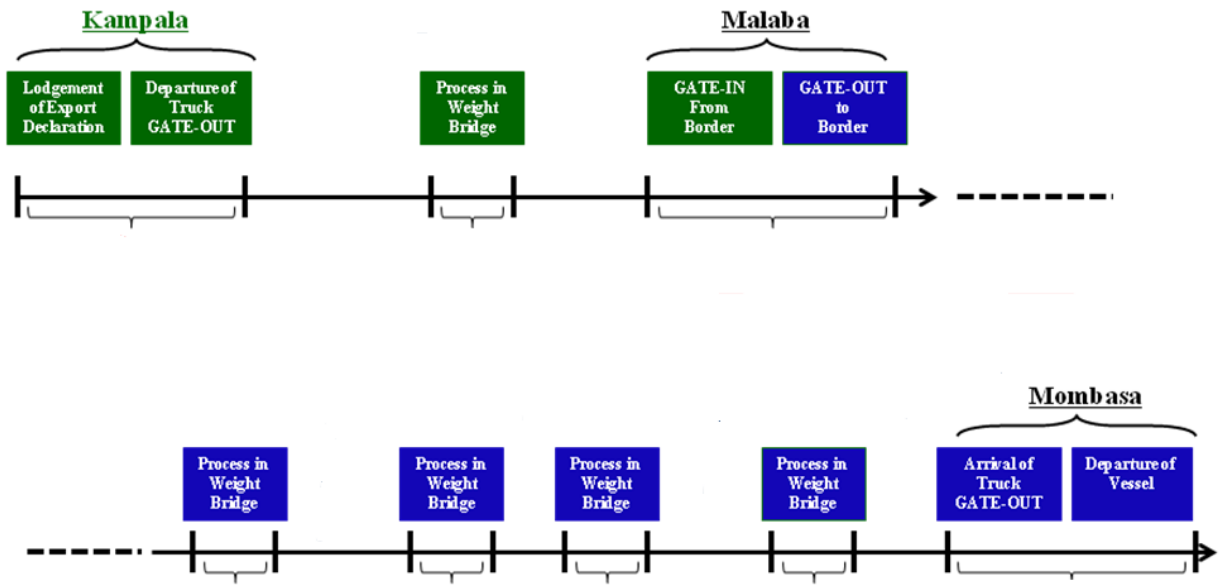


D Clearance of Export from the Region Transiting through Mombasa Port

The figure below shows clearing process at Gatuna/Katuna border for transit exports through the port of Mombasa.



A flow of the export processes for a transit container from Kampala to Mombasa port is also given in flow chart below.



Source: EAC, Pilot Regional Time Release Study: Northern Corridor, Mombasa Port to Kampala (2012)

E Export Process at Kampala

Bonded Warehouse Process

- Clearing Agent captures data into ASYCUDA, prints and submits the Export Declaration to Customs at Bonded Warehouse.

Physical Verification / Loading Process

- Clearing Agent submits declaration to Customs at bonded Warehouse,
- Customs verifies goods for export, seals container and records a verification account,
- Customs returns the Export SAD to Clearing Agent.

Customs Business Center Process

- Clearing Agent presents Export Declaration,
- Customs examines the Export Declaration for conformity and issues release order/T1,
- Clearing Agent collects release order/T1.

Exit Process at Bonded Customs Bonded Warehouse

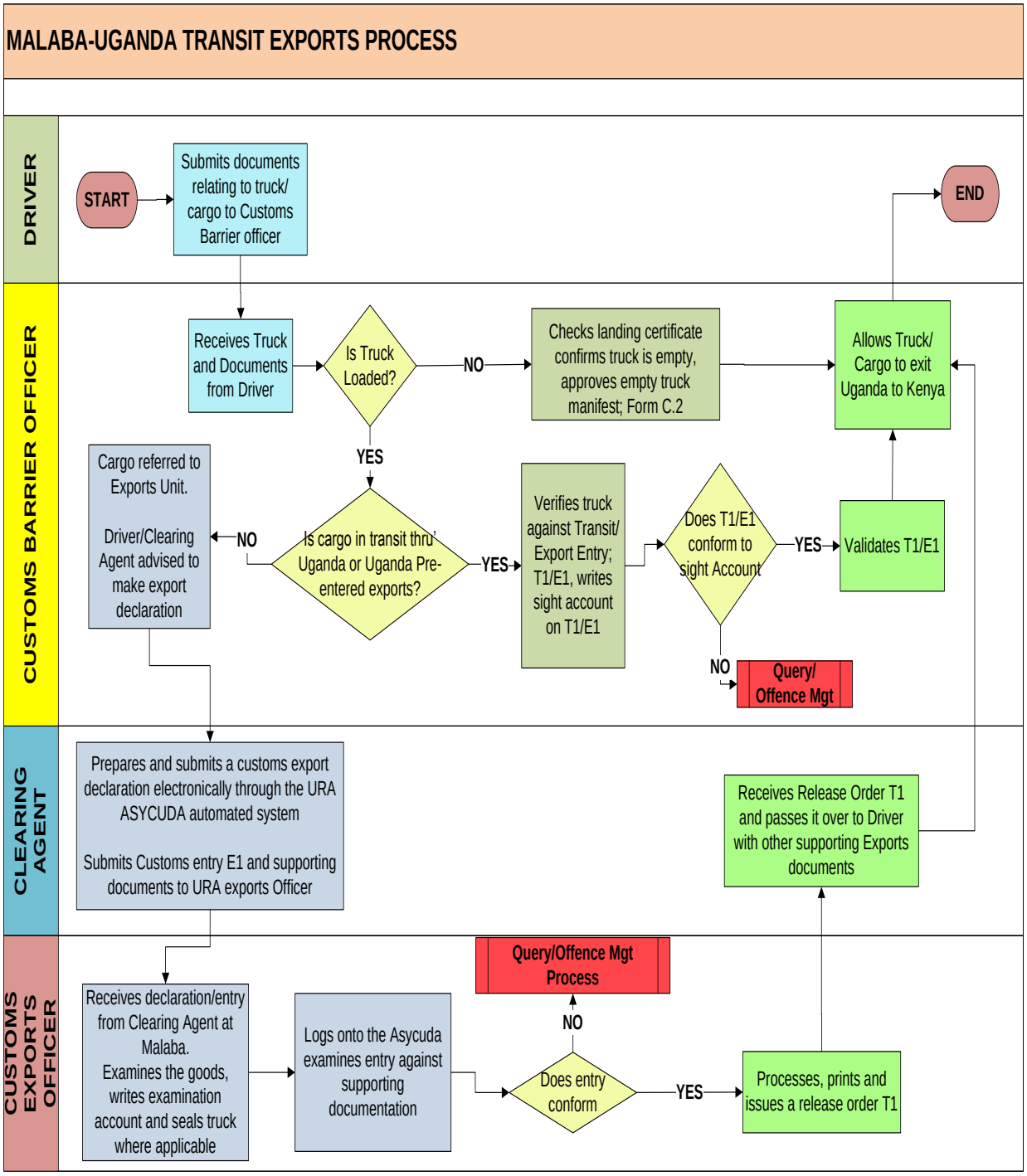
- Clearing Agent delivers release order/T1 and Export Documents to Customs at Bonded Warehouse,
- Customs exits the cargo.

Export Process at Malaba - Uganda

- Truck arrives at Lower Gate,
- Clearing Agent presents declaration to Customs,
- Customs verifies documents, validates T1 (in case of bonded exports), allocates outward rotation number and records it in Gate register,

- Truck exits to Kenya,
- Joint verification is conducted on selected items by URA/KRA at Malaba Kenya.

The transit export processes at Malaba/Uganda are as shown in the flow chart below.



F Export Process at Malaba – Kenya

Lower Gate and Verification Process

- Truck arrives at Lower Gate,
- KRA Customs receives documents, allocates a rotation number,

- Clearing Agent collects documents,
- The truck proceeds to the verification yard, and
- For selected cargo, joint verification is conducted by KRA/URA.

DPC Process

- Clearing Agent electronically lodges T810 into SIMBA,
- Customs processes entry; Agent may lodge a T811 at Malaba,
- Customs inputs verification account into SIMBA
- Customs at DPC releases cargo,
- Truck departs for Mombasa Port.

Weighbridge Process

- There is a directive to weigh trucks only at the entry point for transit cargo to confirm the axle-load, and truck proceeds to Mombasa port.

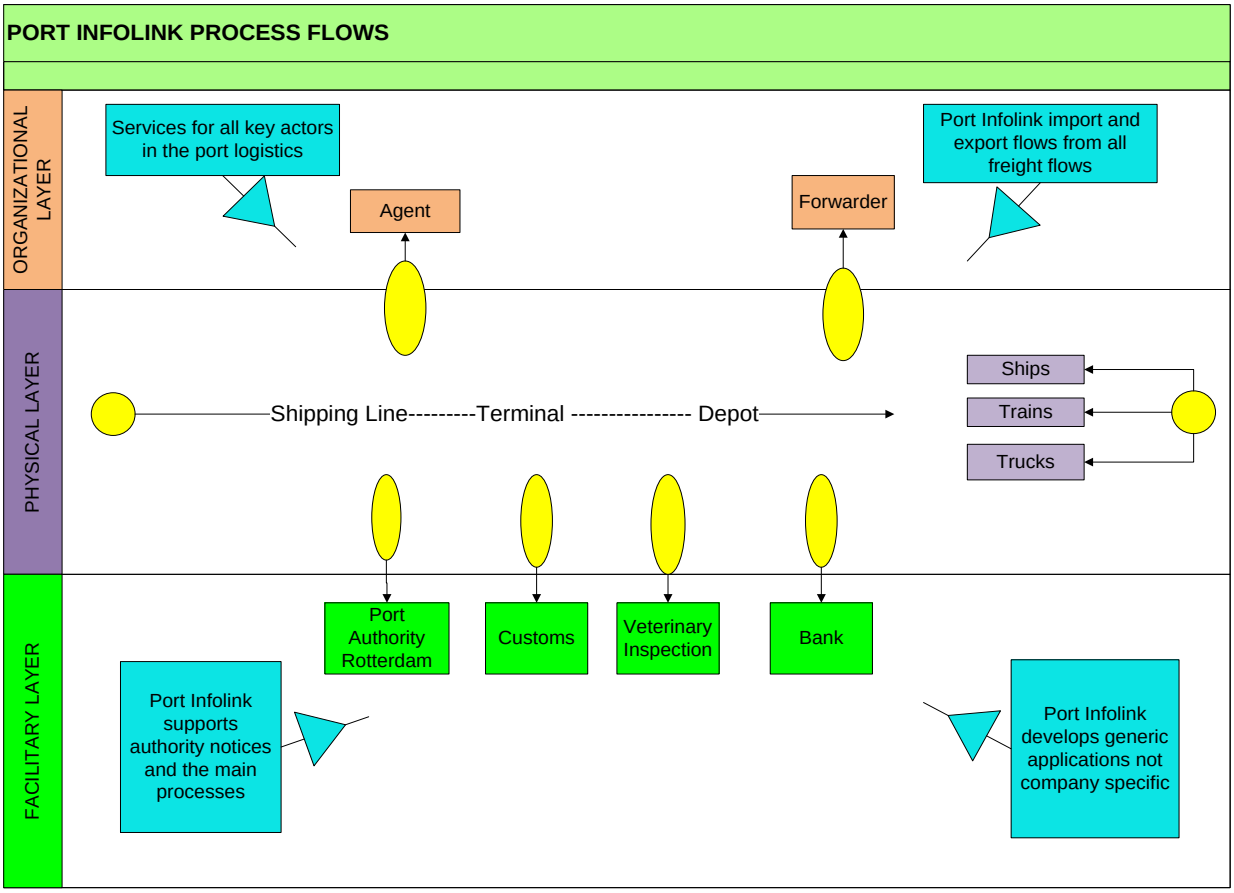
6.3.3 International best practice

6.3.3.1 Rotterdam Processes

The Port of Rotterdam is the largest sea port in Europe and one of the busiest worldwide with a wide number of intermodal transport chain actors interacting with the Port. To promote efficient at the Port they developed a Port Community System (PCS). The Rotterdam Port Community System enables all the links within the Port of Rotterdam's logistics chain to exchange information with one another. To promote the exchange of information an online port-wide ICT platform the Port Infolink was developed by customs and the Rotterdam Port authorities.

Port Infolinks scope of work distinguishes three layers:

- **Organizational Layer**; comprises shipping agents and forwarders. Port Infolink provides services for all the main players in the port and supports import and export flows of all freight transport.
- **Physical layer**; consists of shipping companies, terminals, depots, ships, barges, rail and truck operators
- **Facility Layer**: comprises of the Port Authority, Customs, standards agencies, Insurance companies and banks.



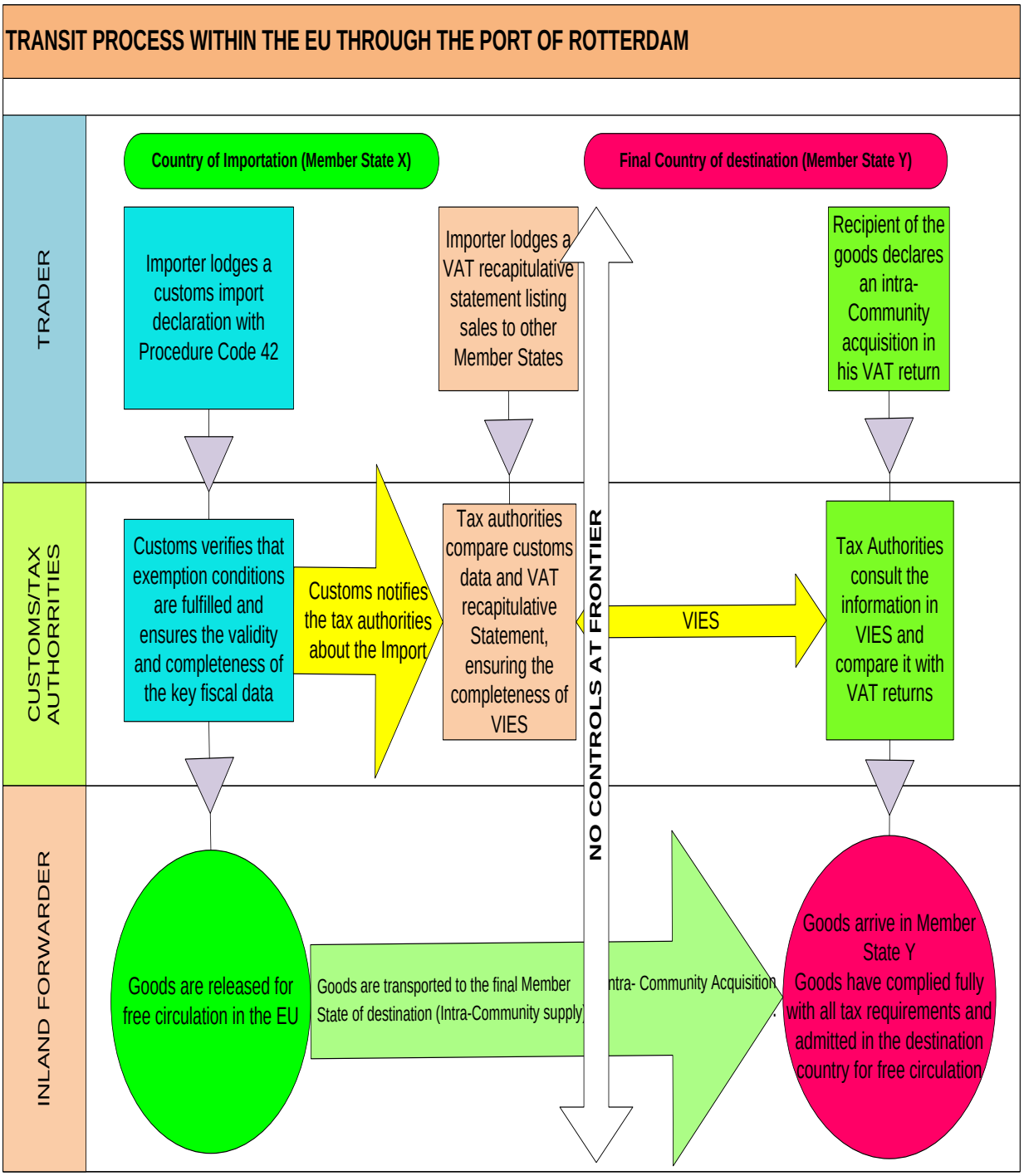
The Port Community System comprises of three basic parts:

- Information and communication services;
- A platform that contains all the facilities that are commonly used for all the services;
- A central database where all all the information that is exchanged through Port Infolink by the customers (companies and government agencies)

Port Infolink in a period of 5 years was able to grow to over 3,000 users in and around the Port sending over 1.25 m messages per month. The PCS assists in overcoming the problems related to the exchange of information e.g. different standards used between the intermodal transport actors thus facilitates the information flows, produces significant cost savings to its users and boosts the efficiency of the intermodal transport chain.

Customs Transit Clearance process through Rotterdam

Goods imported in the EU through the Port of Amsterdam to other EU member States are cleared under customs procedure 42 which exempts the importer of goods destined to a third EU member States from payment of VAT.



6.3.3.2 WCO SAFE Framework of Standards

Introduction

One of the essential drivers of economic prosperity is international trade. Of late the global trading system has been vulnerable to terrorist exploitation that threatens the entire global economy. The Customs Organizations control and administer the international movement of goods as such they are in a unique position to provide increased security to the global supply chain and to contribute to socio-economic development through revenue collection and trade facilitation.

The WCO SAFE Framework of Standards is a regime developed by the WCO Members to enhance security and facilitation of international trade. The SAFE Framework of standards sets up principles and standards for adoption as minimal thresholds for adoption by the contracting parties.

Customs administrations have important powers that exist nowhere else in government - the authority to inspect cargo and goods shipped into, through and out of a country. Customs also have the authority to refuse entry or exit and the authority to expedite entry. Customs administrations require information about goods being imported, and often require information about goods exported. They can, with appropriate legislation, require that information to be provided in advance and electronically.

Objectives and principles of the SAFE Framework

The objectives and principles of the SAFE Framework aim to:

- Establish standards that provide supply chain security and facilitation at a global level to promote certainty and predictability.
- Enable integrated supply chain management for all modes of transport.
- Enhance the role, functions and capabilities of Customs to meet the challenges and opportunities of the 21st Century.
- Strengthen co-operation between Customs administrations to improve their capability to detect high-risk consignments.
- Strengthen Customs/Business co-operation.
- Promote the seamless movement of goods through secure international trade supply chains.

Core Elements of the SAFE Framework

The SAFE Framework consists of four core elements which call for the Members Countries to:

- Harmonizes the advance electronic cargo information requirements on inbound, outbound and transit shipments.
- Use of risk management approach to address revenue and security threats.
- Requires that at the reasonable request of the receiving nation, based upon a comparable risk targeting methodology, the sending nation's Customs administration will perform an outbound inspection of high-risk containers and cargo, preferably using non-intrusive detection equipment such as large-scale X-ray machines and radiation detectors.
- Defines benefits that Customs will provide to businesses that meet minimal supply chain security standards and best practices.

6.3.4 Conclusions and recommendations

6.3.4.1 Differences between the international best practices and current Procedural steps

The differences between the transit processes along the Northern and Central Corridors with the ones in the EU for cargo cleared through the Port of Rotterdam include:

- At Rotterdam the Port Infolink provides a single ICT Platform through which all the stakeholders involved in the handling and clearance of cargo exchange information relating to the clearance of goods. The Port Infolink is owned by the Rotterdam Port Authority. Whereas along the Northern and Central Corridors much as the stakeholders have automated business systems they operate in silos and exchange of information among all the stakeholders involved in the handling and clearance of cargo is yet to be achieved.
- At Rotterdam Customs clears the cargo at the Port of entry and released for free circulation in the EU Community. The cargo in transit is not subjected to a customs bond as is the case along the Northern and Central Corridors.

- At Rotterdam cargo is declared only once at the port of entry, the declaration made at Port entry covers the goods across all the National frontiers of the EU Member States until the cargo arrives is received by the importer in the country of destination. Along the Northern and Central Corridors at each frontier the trader makes a fresh customs declaration and customs transit bond.
- In EU, the customs and other tax agencies exchange information across their national frontiers. Along the Northern and Central Corridors there is limited exchange of information across national frontiers.
- There are still some differences across the national border concerning some of the processes and requirements for the clearance of cargo in the region.
- Risk management is being embraced and non intrusive means of examination of goods but this is yet to spread out to all border stations in the region.
- The member States in along the Northern Corridor has started rolling out the Authorized Economic Operator (AEO) facilities which avails some benefits to the compliant Economic Operators. However, this is being operated in silos by each country. An AEO who accrues benefits in one country, he may not be accorded the same benefits in the next country.

6.3.4.2 Recommendations

- Clearing Agents should utilise the pre-arrival lodgement facility to reduce the dwell time at the port.
- There is need to re-engineer and harmonize processes at the major cargo clearance points to improve the turn-around time.
- Develop and adopt a single customs declaration form which is recognized by all the Northern and Central Corridors Member States for goods cleared in transit.
- There is need to introduce measures to ensure that trucks exit as soon as cargo clearance procedures are completed in order to decongest Customs areas.
- Develop a system of securing goods once at the first port/station of entry of the goods along the Northern and Central Corridors.
- Develop a single ICT platform for exchange of information among all the stakeholders involved in the handling and clearance of goods at the port of Mombasa and Dar es Salaam.
- There is need to implement electronic single window systems to facilitate electronic data interchange to reduce clearance time. The Northern and Central Corridors Member States should implement national electronic Single Window Systems (e-SWS). The National e-SWS should be developed to facilitate exchange of information among all stakeholders across the national frontiers.
- There is need to improve infrastructure, particularly, at the borders to support and facilitate clearance and movement of cargo.
- There is need to synchronize administrative arrangements of key agencies involved in cargo clearance process to work 24 hours.
- For each Member State, establish one government lead agency at the frontiers with specialized staff from the other government agencies seconded to work under the lead agency. This will avoid various departments from one country operating in silos at the border. The lead agency will harmonize and rationalize the border clearing activities.
- There is need for cargo clearing and handling Agencies to provide for business continuity plans in times of system failures.

6.4 MULTIMODAL LICENSES AND REGULATION

6.4.1 Introduction

The objective of this section is to assess ease of gaining multi-modal licences, and identify both impediments and potential improvements. Road transport accounts for over 90 percent of all transport along the East African Northern and Central transport corridors. Notwithstanding this fact, East African countries transportation legal and regulatory regimes have, until recently focused on the measures geared towards quantitative regulation. This part of the study is aimed at setting out the legal and regulatory framework for licencing of transport logistics providers, being rail, road and ports along the two Corridors. The study undertakes a review of the licencing requirements and obligations for rail, road, sea and inland waterways modes of transport in East African Community member states, both at regional and national levels. The purpose of this review is to ascertain whether the existing legal framework for licencing of transporters along the corridors is adequate for ensuring trade facilitation while minimising the costs of transport, and makes recommendation for qualitative regulation of licensing.

6.4.2 Railways

6.4.2.1 Railways Operations Licensing

Within the EAC, railways operate only in Kenya, Tanzania and Uganda. In Kenya and Uganda, railway services were public funded and thus operated by State agencies until 2006 when the Kenya-Uganda railway was subject to a joint concession in 2006 to Rift Valley Railways (RVR). In Tanzania, railway network was managed by the Tanzanian Railway Corporation and concessioned in 2007 to RITES. Both concessions were made possible through PPP. Despite the part-privatization of the railways services both continue to experience problems to date. In the case of Kenya, the shareholding of RVR has been restructured and concession terms renegotiated.

In Tanzania, the concession has been cancelled and steps taken for the management of TRL to be transferred from the concessionaire to a manager appointed by the government. Several PPP projects are under consideration. These include an extension of the Tanzanian line to Burundi and Rwanda. Moreover, all EAC states have adopted a decision in principle to build a standard-gauge network.

As demonstrated above, the operation of railways and the provisions of railway of services are regulation by legislative instruments and concession agreements and thus the provisions of the relevant legislation and terms of the agreement set out the pre-conditions for being granted a concession for railway operations or service provisions.

6.4.2.2 Legal and Regulatory Instrument

A Regional Instruments

EAC Common Market Protocol

To date, only Rwanda and Uganda have made offers to liberalize the railway services sector. Neither imposes any restrictions on consumption abroad or cross-border supply. However, Rwanda has indicated that it reserves the right to restrict the commercial presence of foreign service providers with regard to market access. Similarly, Uganda has entered a reservation with regard to the commercial presence of foreign service providers to the extent that it has already granted concessions in this area.

B National Legislation

Burundi

At present there is no railway network in Burundi. Consequently, there is at present no railway law in Burundi.

Kenya

The Kenya Railways Corporation Act (KRC Act was amended in 2006 to provide a legal framework fort the authorization of the concession which was granted to Rift Valley Railways in 2006 to jointly operate the Kenya/Uganda railway system and permits Kenya Railways to enter into concessions, management contracts and leases. However, the legislation does not explicitly provide for a separate infrastructure management company and therefore expresses a preference for a vertically separated concession model. The KRC Act does not specify the nature of the concession arrangement which the Kenya Railways Corporation (KRC) may enter into. By virtue of the recently adopted PPP regulations, KRC is, as procuring entity, responsible for managing the PPP agreement entered into with the concessionaire. This includes measuring the output, monitoring implementation and day-to-day management. However, the provisions of the KRC Act are inadequate in terms of creating a comprehensive safety regulatory framework. No provision is made for the development and implementation of railway safety standards, nor for independent oversight to ensure compliance and to undertake safety and accident investigations.

Rwanda

At present, Rwanda has no railway infrastructure and hence no regulatory framework for railway regulation and licensing is in place.

Tanzania

The Railways Act establishes the Reli Assets Holding Company (RAHCO) with the mandate to acquire the rail transport functions of the Tanzania Railways Corporation. The Act empowers RAHCO to enter into vertically separated concessions whereby a private operator(s) will provide railway services, while RAHCO remains responsible for managing railway infrastructure. In the absence of any concession, RAHCO has the residual role to operate railway infrastructure and provide rail services. RAHCO also manages the leased rail assets and retains responsibility for implementing heavy infrastructure renewal projects. The Railway Act also vests powers in SUMATRA to economically-regulate the rail transport sector, including powers to regulate the tariff and act against anti-competitive practices. Similarly, the Act mandates SUMATRA to undertake rail safety regulation and to this end, SUMATRA has issued various safety regulations. SUMATRA is responsible for issuing railway operating licenses, ensuring railway safety and approving engineering and maintenance standards.

Uganda

The Ugandan Railways Corporation enjoys the same powers [as …] to enter into PPP-type arrangements with regard to railways as it does in relation to inland waterways (see discussion above). The main deficiency is the lack of a regulatory framework for railway safety. The establishment of a multi-sector transport regulator is reported to be under consideration. In the meantime, the transport regulation department in the Ministry of Works is entrusted with overseeing compliance by the concessionaire with safety requirements stipulated in the concession agreement. In practice, it appears this role is delegated to the URC. Further, the URC may enter into agreements with any person for the provision of a service or facility, which the URC is authorized to provide. This provision does not provide a comprehensive framework for PPP arrangements.

6.4.2.3 Summary of Main Findings on Railway Operations Licensing

A Findings

1. Legal Framework for PPP arrangements: There is a need for suitable PPP project identification, preparation and procurement rules in road infrastructure and ports, also apply to the railways. The problems experienced with the cancellations of concessions and the non-compliance with concession agreements highlight the need to invest in better PPP project preparation and oversight.
2. There is still lack of autonomy in railway management and the concessionaire in both Kenya and Tanzania are still subject to some level of control from the respective railway corporations.

B Recommendations

1. Extend and interconnect the railway networks in the region given the rationality of railways in the transportation of heavy products over long distances. Furthermore, establish railway interconnectivity with other African railway networks
2. Put in place an inclusive coordination framework for harmonization and modernization of railway networks in the region to ensure a balanced development of railway systems in the region.
3. Extend the railway network in the member States where it does not exist and improve the performance of existing networks.
4. Promote return of heavy cargo to Railway transport in purpose to reduce transport cost and protect road network within the region.
5. Promote Private-Public Partnership (PPP) in the railway sector.
6. Strengthen human resource capacities within the railway sector.
7. Establish independent regulatory framework for railways. Only Tanzania has undertaken institutional reforms to set up an independent railway regulator (SUMATRA).
8. Promotion of autonomous railway management
9. Ensure that the long term government plan to develop a standard-gauge railway system does not uphold the necessary short term improvement plans to upgrade the railway system.

6.4.3 Ports & waterways licensing

6.4.3.1 Legal and Regulatory Framework

Introduction

Of the five EAC countries, only Tanzania and Kenya are coastal states and thus own and operate seaports. In the East African Community region, transit traffic to and from landlocked entails passing through the port of Mombasa in Kenya or the port of Dar es Salaam in Tanzania. Originating from the two ports are the Northern and the Central Corridors respectively. The operational efficiency and management of these ports therefore have significant impact on efficiency and costs of transport on two East African Corridors.

Port Management Reform

Tanzania took early initiative in port management reform having successfully concessioned its container terminal in 2000, and having established a multi-sector economic and safety regulator with responsibility for regulating competition and promoting safety. Kenya has started construction of the second container terminal that will be concessioned to a private operator through Public Private Partnership. The Kenya Ports Authority (KPA) has Service Level Agreements with privately owned Container Freight Stations (CFSs) which are mandated as clearing sheds for containerized cargo landed at the port of Mombasa for both domestic consumption and transit. The objective of this policy directive by the government of Kenya was to reduce congestion at the port of Mombasa. This initiative has had significant effect of reducing congestion at the port of Mombasa and created more efficiency in the clearance of cargo destined for both the domestic markets as well as transit cargo. KPA Act is also being reviewed, which will consider KPA process into a landlord port and investments in PPP. Kenya has enacted PPP Act that provides a framework for PPP investments. The EAC-CMA has also established a regulation on PPP.

Although both Kenya and Tanzania have not been transformed seaports into a landlord model, the ports have successively initiated PPP projects.

Competition regulation

The Kenya Maritime Authority was formed in 2004 to inter alia, regulate coordinate and oversee maritime affairs in Kenya. Since 2004, KMA has made significant strides in the regulation of maritime services providers in Kenya. The main achievement of the KMA was the development of the Merchant Shipping (Maritime Service Providers) Regulations, 2010. However, anecdotal evidence of monopolistic practices in the port of Mombasa is still present due to a weak regulatory framework arising out of the fact that a court in Kenya granted a conservatory order staying the application of the regulations till the final determination of a suit disputing the constitutionality of certain provisions of the regulations. The regulations empower the KMA to regulate competition in the ports and maritime sector.

Identification and preparation of Public Private Partnerships

PPP frameworks in Burundi, Rwanda and Uganda are still rudimentary. Further legal reform is needed to create enabling laws to support inland port and maritime service PPP arrangements.

Management of inland waterways

The East African Community adopted the Inland Waterway Protocol to, inter alia, facilitate the regulation of water transport within the member States waterways. However, due to limited commercial activity on inland waterways and lack of connectivity of the inland waterways with the main transport corridors, the lack of implementation of the EAC Inland Waterway Protocol does not pose a significant constraint to transport of goods within the region at present. Consequently, regulation of inland waterways is driven by domestic legislation.

6.4.3.2 Legal and Regulatory Instruments

A Regional Instruments

Tripartite Agreement on Inland Waterway Transport

The Agreement was concluded by Kenya, Tanzania and Uganda in 2002. By virtue of their treaties of accession, Burundi and Rwanda subsequently also became bound by the Agreement upon joining the EAC. The Agreement provides a comprehensive framework for regulating inland waterway shipping. It harmonizes requirements relating to ship documents and registration. It imposes common safety standards related to periodic ship surveys, safe manning requirements and the provision of aids to navigation and radio communication. The Agreement adopts the important principle that states should mutually recognize each other's registration, survey and safe manning certificates. The Agreement further commits the states to apply the IMO's rules on the prevention of collisions and to adopt common rules on conducting search and rescue operations. It also contains a commitment to harmonize rules on the prevention of marine pollution. The Agreement adopts several common principles governing the liability of carrier for loss or damage to goods and liability for personal injury and death arising out of the conveyance of passengers.

Common Market Protocol

On internal waterway transport, it is noteworthy that neither Kenya nor Tanzania have made any offers to liberalize services in this sub-sector. By contrast, the remaining states have all agreed to open their markets in passenger and freight transport, vessel rental, vessel maintenance and repair, pushing and towing services and support services. Uganda has recorded a reservation with regard to market access in relation to commercial presence, which is restricted to the extent that it has already entered into concessions (with RVR). Burundi and Rwanda's offers came into effect in 2010 and Uganda in 2012.

Given the level of market activity at present, Kenya and Tanzania's failure to liberalize is unlikely to have any impact currently, but this may change if inland waterway services pick up. In maritime transport services, Kenya has followed a similarly restrictive approach. It has made an offer to allow market access in vessel maintenance and repair, but in the case of foreign firms it requires a joint venture with Kenyan nationals. Tanzania has made offers in respect of passenger and freight transport and cargo handling. It has agreed to liberalize market access, although in the case of cargo handling this is restricted to the extent that it has already granted concessions in this area. Unlike Kenya, Tanzania has made no offer in vessel maintenance/repair.

B National Instruments

Burundi

Since colonial times, the port of Bujumbura has been subject to various concession agreements as well as direct management by government. At independence, the port was under concession and this arrangement lasted until 1967 when a decree was passed transferring control to the government. After undertaking various investments, a new concession was entered into in 1992, whereby government leased the port infrastructure to an operating entity in which it took a minority share (48 percent). The contract was renewed in 2012. The Burundi government is reviewing the current legal structure whereby the port is administered with a view to possible future improvements. No specific legislation governing ports or inland waterway transport has been identified.

Kenya

Seaports

The adoption of a landlord port authority model is set as an explicit policy goal in the Integrated National Transport (INTP), 2009. However, this policy objective is not yet fully reflected in ports legislation. The overall functions attributed to the KPA currently, clearly envisage the authority operating a service-port model and providing the full spectrum of land- and marine-side services associated with commercial ports.

Efficiency constraints arise mainly due to the absence of an economic regulatory framework for ports. The Government has entrusted the KMA to act as competition regulator for the ports and maritime sector. Draft regulations have been prepared which will, amongst others, provide for:

(a) Economic regulation of ports, including regulation of monopolies, tariff monitoring and tariff regulation for monopoly service providers;

(b) Powers vested in the regulator (KMA) to induce competition;

(c) An arbitration procedure administered by the regulator to resolve disputes between the port

(d) authority, private port operators, other maritime service providers and port users; and

(e) Penalties and sanctions for antic-competitive behavior.

Inland Ports

The provision of inland water services and associated port infrastructure is a statutory responsibility of the Kenya Railways Corporation (KRC). With the concessioning of the Kenya railways, the operation of the wagon ferry on Lake Victoria was also transferred to the concessionaire. The mandate of the Kenya Ports Authority is now being expanded to include the operation of the Kisumu lake port. Both KPA and KRC Acts will be reviewed to accommodate the changes. Shipping services on inland waters are subject to regulation by the Kenya Maritime Authority in terms of the Merchant Shipping Act, 2009.

Rwanda

The RTDA has the mandate to develop inland waterway infrastructure. Most lake transport occurs on Lake Kivu. While the RTDA is able to enter into concession arrangements, there are no specific policy guidelines for this sub-sector.

Tanzania

Seaports

Tanzania's transport policy recognizes the need for further restructuring to improve infrastructure and to enhance private sector participation in key services. The policy does not express any specific preference for the landlord port authority model. The legislation has been updated to enable the Tanzanian Ports Authority (TPA) to grant port concessions and to enter into other types of PPP such as management contracts. At the same time, SUMATRA was established and became operational in 2004 with responsibilities to oversee service standards, monitor performance regulate tariffs and promote competition.

The ports in Tanzania are prone to natural monopolies. The container terminal concessioned in 2000 has operated with periods of exclusivity, albeit subject to oversight by the TPA as landlord and SUMATRA as regulator. More recently, congestion at the terminal appears to have prompted the TPA to offer

container-handling services at its wharves in competition with the private operator (TICTS). While this may be justified as a short-term measure by virtue of the TPA's duty to act as default operator, there is a clear potential for conflict of interest if this situation were to persist. This suggests that there is a need for SUMATRA to monitor the situation and to intervene with an appropriate remedy, if necessary.

Inland Waterways

Under the Ports Act, the TPA is responsible for inland ports on Lakes Victoria, Tanganyika and Nyasa. Hence, the power it enjoys to enter into PPPs in respect of seaports also extends to inland ports. Similarly, SUMATRA's role as economic and safety regulator also extends to inland ports.

Uganda

The Uganda Railway Corporation (URC) is mandated to provide inland waterway transport services and is also authorized to enter into agreements with any person for the provision of such services. Such agreements may also provide for the private party to levy fees for the services it provides in behalf of URC and can, therefore, provide for suitable PPP type arrangements on inland waterways, such as concessions, managements contracts, leases, etc. The Ugandan wagon ferries and the terminals at Port Bell and Jinja were included in the railway concession and have since November 2006 been transferred to Rift Valley Railways.

Inland water transport services are subject to regulation by the Transport Licensing Board (TLB). Regulation has both a safety and an economic dimension. The former verifies seaworthiness of the vessel through routine vessel inspections. With regard to the latter, the TLB may (a) regulate fares, (b) specify routes that the vessel may apply, (c) restrict goods that the vessel may carry and (d) grant exclusive licenses (monopolies). New legislation governing inland water transport is reported to be under consideration. The URC is also authorized to provide and manage port infrastructure. The authority to enter into PPP type arrangements also extends to the construction and operation of infrastructure.

Parallel authority has been vested in the Uganda National Roads Authority (UNRA) to also provide inland waterway and ferry services. UNRA is charged with the development and management of the road network. "Road" is defined as including a ferry or ship or designated by the Minister, but does not include port infrastructure. It should be noted that unlike the URC Act, the authority of UNRA to enter into PPP type arrangements is generally less well defined.

6.4.3.3 Summary of Main Findings on Ports and Inland Waterways: Issues, Deficiencies, and Potential Impact and Recommended Actions

Issues	Deficiencies	Potential Impact on Corridor Performance	Recommended Action
Management of Inland waters	➢ Non-implementation of the Inland Waterway Protocol / lack of domestic legislation for regulation of inland waterways service providers	➢ Lack of Harmonized regulation of inland waterways due to multiple and possibly conflicting national regulatory regimes	➢ EAC States should take steps to domesticate the Inland Waterway Protocol as part of their domestic law as it provides a common regulatory framework, which can be usefully applied once inland waterway traffic picks up. ➢ EAC states to adopt measures to implement the Inland Waterway Protocol.
Port Management Reform	➢ Delays in implementation of an entrepreneurial management model by Kenya Ports Authority.	➢ Delays in expanding port physical capacity due to funding constraints.	➢ Transformation of the Kenya Ports Authority into a landlord port authority as envisioned under the INTP, 2009. ➢ Review of the KPA Act to align it with current policy objectives as set out under INTP, 2009.
Competition regulation	➢ Framework for port economic regulation developed, but not yet operational in Kenya. ➢ Development of private monopolies especially in the provision of maritime logistics services in Kenya ➢ Development of private monopolies in port functions, for e.g., grain bulk handling in Kenya.	➢ Potential abuse of dominant position by monopolistic service providers / rent-seeking behavior ➢ No competition to moderate pricing of port services ➢ Discouragement of private investment	➢ Implement legislation to provide a framework for independent port regulation and develop capacity to oversee port pricing, access issues and arbitrate disputes between service providers ➢ Due to the prevalence of natural monopolies in ports, there is a parallel need to develop and implement a framework for economic regulation.

Issues	Deficiencies	Potential Impact on Corridor Performance	Recommended Action
Identification and preparation of PPP Projects	➢ Implement PPP project identification, preparation and procurement rules and bolster PPP management capacity.	➢ Performance Inefficiencies ➢ High transport costs ➢ Infrastructural constrains.	➢ Review of laws to allow for PPP projects in ports infrastructure development and service provision ➢ The establishment of an economic regulator to assume responsibility to regulate port pricing, access and act as neutral arbiter in the event of disputes between services providers and customers.

Other recommended actions for the region:

a) Undertake legal and institutional reforms of Inland Waterways transport in order to attract more Public-Private-Partnerships (PPP);
b) Promote Public-Private-Partnership (PPP) in the rehabilitation, maintenance and modernization of transport in Inland Waterways.
c) Enhance capacity building within the Inland Waterways transport sector.
d) Enhance transport security and safety within the Inland Waterways.

6.4.4 Road transport licensing

6.4.4.1 Introduction

The road transport accounts for more than 90 percent of all means of transport used in the member states. Despite this, there is a policy and legal vacuum in the road transport sector. Measures have not yet been introduced to replace the system of quantitative regulation with qualitative regulation. This situation is most prominent in Kenya and Uganda and to a lesser extent in Tanzania. Kenya has devolved authority over road transport to the Kenya Revenue Authority, while Uganda has not yet implemented the regulatory regime envisaged in its 1998 legislation. Tanzania abandoned its previous regulatory system, and is only now taking steps to introduce operator registration as a precursor to progressively introducing qualitative regulation. Both Burundi and Rwanda are contemplating new regulatory measures, but unfortunately the proposals under consideration reverse the proposed market access liberalization envisaged under regional agreements. In Rwanda, the proposed measures have potential anti-competitive effects.

6.4.4.2 Legal and Regulatory Framework

A Regional Instruments in relation to licensing

COMESA Single Carrier License / EAC Tripartite Agreement on Road Transport

Two regional agreements apply to road transport on the East African Northern and Central transport corridors. Under the Northern Corridor, Transit and Transport Agreement, Protocol n° 6 commits the parties to implement the COMESA Single Carrier License. However, as all Northern Corridor countries (except the DRC and South Sudan) are also members of the EAC-CMA, the EAC-CMA Tripartite Agreement on Road Transport (EAC-CMA Agreement) similarly applies to the Northern Corridor. The COMESA Single Carrier License does not apply on the Central Corridor, as Tanzania is not a COMESA member (although it arguably applies to transport between Burundi, Rwanda, DRC and Uganda).

The EAC-CMA Agreement applies to the Central Corridor, and also covers transport between Kenya and Tanzania on routes not part of the corridor. At present, neither one of the agreements is in force. In 2009, the Tripartite tasked COMESA with coordinating activities between the RECs to develop a new multilateral transport agreement. To this end, SADC is seeking funding for a study to develop such an agreement. Both the COMESA and the EAC-CMA Agreements aim to liberalize access to the cross-border road transport market based on a single carrier license or permit. Carries are licensed only in their States of origin. The agreements require authorities in other states to recognize such licenses/permits on the basis of reciprocity. Effectively, the need for a second or third permit in the country of destination or transit is abolished.

The single carrier regime has noteworthy advantages in terms of eliminating a number of non-tariff barriers (many of which currently plague road transportation on the Northern and Central corridors) and more effective transport demand better management. Aside from the abolition of a permit requirement in the state of destination/ transit, these include:

- Mutual recognition of weighbridge certificates;
- Mutual recognition of driving licenses and vehicle road worthiness certificates;
- Mechanisms to manage market share between carriers of the respective participating countries;

- Mechanisms for exchange of information on permits/license issued and data on transport and traffic offences; and
- Procedures to bar non-compliant carriers from undertaking cross-border transport.

The implementation of a single carrier system on the Northern and Central Corridors holds significant potential benefits for the region. However, implementation has been held back in all States by a combination of factors, including but not limited to the following:

- The overlap between the COMESA and EAC regimes on the Northern Corridor (both proposes comparable regulatory systems, although the EAC Tripartite Agreement is more modern and builds on the earlier experience with these agreements in Southern Africa).
- Lack of domestication of regional agreements. Implementation requires legislative amendments in all member states. In the absence of the latter, national officials have no mandate to apply the regional agreements.
- Implementation also requires additional resources in terms of hardware, software programmes, the design of procedures, etc. Without a statutory mandate, national authorities are constrained in securing funds to recruit personnel, purchase equipment and set up systems for the implementation of their obligations under the agreement.
- Multiplicity of transit licenses and agencies that issue the transit goods license in DRC making it difficult for the other member States (the EAC-Partner States) to recognize it.

The partial implementation has far reaching consequences for the road transport industry. Not only are the benefits of liberalization and abolition of NTBs not secured, but there is evidence that individual States are implementing (or tolerating) protectionist measures and contemplating new regulatory barriers which undermine the spirit of the agreements. The implications of the lack of implementation are appreciated at REC level. The EAC Secretariat views both the EAC Transport Strategy which is under development and the Trade and Transport Facilitation study as steps towards securing more effective implementation of the agreement.

EAC-CMA COMMON MARKET PROTOCOL

The EAC Common Market Protocol was signed in 2009. Member States to the Protocol agreed that the commencement date of the operation of the EAC Common Market Protocol would be 1 July 2010. Generally speaking, the EAC Common Market Protocol binds the member states to work towards realizing a common market characterized by the free movement of people, goods, services and capital. Transport has been identified as a sector in which states will progressively liberalize the free movement of services. Member states have made a number of commitments to liberalize the transport services market. These commitments cover all transport modes and are contained in a Schedule to the Protocol. The commitments range across all four modes of supply and apply both to market access and national treatment.

With specific reference to road transport, all EAC member States made identical commitments to eliminate restrictions on the freedom to supply services by 2010. The only exception is Kenya, which reserves the right to restrict the commercial presence of road freight hauliers from other member States. This implies that commercial trucking companies from other EAC states do not have an automatic right to establish offices and premises in Kenya and to market their services to Kenyan consumers. The impact of commitments made in respect of other transport modes are discussed separately below.

B National Regulatory Framework in relation to road licensing

Burundi

Existing legislation in Burundi regulates domestic road transport within Burundi. Trucks used in the conveyance of goods across the borders are licensed by the Burundi Revenue Authority. Loi nº 1/04 of 2009 regulates entry to the domestic road transport market. International road transportation is expressly excluded from the law it is covered under the EAC-CMA, and the relevant multilateral or bilateral instrument applies. Truckers are thus subject to registration by the Ministry of Transport and provincial authorities. Both the owner ("entrepreneur") and the driver must meet conditions pertaining to good repute, financial standing, and professional competence. Standards for compliance with these conditions and their assessment must be stipulated in a ministerial decree. To date, no such decree has been issued, although a draft text is currently under consideration.

Currently, the EAC-CMA empowers the Commissioner Customs Burundi to license vehicles to convey internationally traded goods whether imported for the Burundi local market, in transit or exports from Burundi).

Kenya

Since 1995, the Ministry of Transport's functions relating to the registration and licensing of vehicles have been transferred to the Kenya Revenue Authority (KRA). The functions transferred to the KRA initially included the licensing of commercial goods and passenger vehicles. Amongst others, licensing entails the Commissioner in charge of registration of motor vehicles undertaking enquiries into a license holder's "reliability" and "financial stability" as a means of regulating the quality of transport services offered in the market.

In addition to the requirement of driver licensing and vehicle roadworthiness testing, licensing is now limited to (a) vehicle carrying goods under customs control and (b) transit vehicles. It is noteworthy that KRA undertakes licensing largely as a revenue-protection activity. There is no evidence that consideration is given to the impacts of the licensing regime on transport efficiency. In practice, the current rules severely constrain the cost-effective use of transport equipment and entail a significant extra cost for the trucking industry.

Vehicles carrying goods under customs control and on transit: Licensing of vehicles carrying goods under customs control and vehicles carrying transit goods is a requirement under EAC Customs Management Regulations, 2012. The regulations further permit the commissioner to attach such conditions to the license as he deems fit. One such condition is that the licensed transit vehicle must be used exclusively to convey transit goods or goods under customs control (see forms C 32 and C 45 in the Schedule to the said regulations). This implies that the vehicle (rigid vehicle, truck tractor and/or trailer) is effectively excluded from being used to convey goods destined for domestic destinations. Truckers operating licensed transit vehicles are thus forced to keep such plant idle if no transit loads are available and also may not load domestic goods to compensate for empty backhauls when using such vehicles. Similarly, vehicles are obliged to travel only on appointed transit routes.

Authorization permit: The EAC Customs Management Regulations were revised in 2012 and at present, a transit license is not required for a vehicle licensed in a COMESA or SADC member state. However, a certificate of approval issued by the Commission is still required. The likely impact of these changes remains to be assessed. Foreign goods vehicles entering Kenya are required to obtain an authorization permit. This requirement does not apply to a vehicle issued with an international certificate or a COMESA license. As the latter are not issued in any of the states, this implies that all foreign commercial vehicles entering Kenya are subject to the permit requirement.

As discussed above, Kenya has qualified its offer under the Common Market Protocol whereby it reserves the right to restrict the commercial presence of carriers from other EAC states in its territory. It should be noted that no other EAC state restricts market access in this way. The Kenyan approach introduces a potential hurdle to the creation of a common market in transport services. As seen in Southern Africa, one of the effects of market liberalization was that trucking firms have grown into regional operators by establishing commercial presences in various countries where they operate. For the most part, this development has had beneficial impacts across all countries in terms of improving the offer of transport services and ensuring competitive pricing.

Rwanda

The transport of goods by road is regulated by the Rwanda Utilities Regulatory Agency (RURA). Amongst others, RURA is responsible for verifying that operators have adequate financial means to finance their operations, protecting users from anti-competitive practices and ensuring that operators comply with legal requirements governing their operations.

RURA has issued draft regulations governing goods transport operations that were subject to public consultations in May 2010. The regulations came into effect on 1st March 2013. Under the regulations, all providers of goods transport services are to be licensed by RURA. The regulations also apply to foreign truck owners, who must obtain a transit license if they intend operating across Rwanda territory. In addition to technical specifications applicable to vehicles, license applicants must meet several requirements such as proof of roadworthiness and insurance.

The regulations contain several potentially restrictive provisions, most notably,

- Companies applying for licenses are subject to a minimum fleet size requirement (i.e. if a company owns less than the specified number of vehicles, no license may be issued).
- The Licensing Board is empowered to set tariffs and such tariffs form part of the licensing conditions. As a result, the Licensing Board may interfere in the market's price setting function.

Tanzania

Formerly, goods transport was subject to licensing by SUMATRA. As part of the licensing procedure, SUMATRA could take into account the applicant's reliability, financial stability and facilities and previous conduct. At the moment, SUMATRA has introduced a system of operator registration mainly on order to build a database so that it can execute its mandate to monitor and regulate transport prices.

Since 2008, SUMATRA requires all truck operators register their vehicle details annually on the basis of which a operator decal ("sticker") is issued which must be affixed to the vehicle. The registration process acts as a form of safety regulation in that an operator is required to provide a copy of the vehicle inspection report and proof of third party insurance. SUMATRA also verifies that the vehicle has been registered by the TRA. It is anticipated that the registration requirement will provide the basis for the introduction of more extensive quality standards for freight operations (a system of quality standards has already been introduced for passenger transport).

The Tanzania Revenue Authority (TRA) also licenses vehicles carrying transit goods. Such vehicles may only be used to undertake cross-border operations, but this restriction only applies to a trailer or a rigid vehicle, not a truck tractor. Hence, Tanzanian transporters enjoy somewhat more flexibility in managing the utilization of transport equipment than their Kenyan counterparts. The TRA have also recently permitted transit operators returning from international trips to pick up backhauls from locations within Tanzania provided they remain on the designated transit route. However, at present, this arrangement is a concession granted by the Commissioner and thus subject to reversal at any time.

Uganda

The Traffic and Road Safety Act, 1998 regulates the licensing of goods vehicle transport which is entrusted to the TLB. However, the licensing of goods vehicles has not yet been introduced, as the necessary capacity still needs to be developed within the Ministry. The establishment of a multi-sector transport regulator has been proposed and in future the regulator may assume this function.

Vehicles that convey goods across the border are licensed by the Uganda Revenue Authority through application of the provisions of the EAC-CMA and EAC-CM Regulations. Once a vehicle has been issued with a license under the EAC-CMA by any of the EAC Partner States that license is recognized by URA i.e. URA will not require the vehicle to obtain another license from Uganda.

Foreign registered vehicles are restricted from transacting business locally in Uganda. However, they are allowed to transport goods from any point outside Uganda to a destination within Uganda or from any point within Uganda to a destination outside Uganda.

6.4.4.3 Summary and Main Findings on Road Transport Licenses, Impediments and Potential Improvements

A Burundi

Applicable licenses	Impediments	Potential improvements
Currently a Transit Goods License issued under the EAC-CMA/EAC-CMR applies to all transporters entering Burundi for local delivery or transiting Burundian territory. Domestic transportation license. Driver's License.	Road User Charges levied on foreign registered vehicles entering Burundi are not in Harmony with those levied by the other EAC-Partner States of Kenya, Tanzania and Uganda	Adopt the Road User Charges provided for under the EAC-CMA and EAC-CMR

B Kenya

Applicable licenses	Impediments	Potential improvements
Drivers' license. Vehicle roadworthiness testing (limited to the licensing of (a) vehicle carrying goods under customs control and (b) transit vehicles. Licensing of vehicles carrying goods under customs control and vehicles carrying transit goods is a requirement under EAC customs legislation.	• There is no evidence that consideration is given to the impacts of the licensing regimes on transport efficiency. • Licensed transit vehicle must be used exclusively to convey transit goods or goods under customs	Market Liberalization to : • facilitate the growth of trucking firms into regional operators; and improve the offer of regional transport services and ensure competitive pricing Timely processing and issuance

	control.	of licences
Authorization permit.	• Prohibition of transit vehicles from loading domestic goods to compensate for empty backhauls	Review of the current law on licensing legislation and harmonisation of the same with the provisions of the EAC Tripartite Agreement
	• Vehicles are obliged to travel only on appointed transit routes	Adoption of a qualitative regulatory framework for qualitative approach for vehicle licensing

C Rwanda

Applicable licenses	Impediments	Potential improvements
Road Transport Operator's License License for Transport of Goods Transit license Proof of Roadworthiness Third Party Risk Insurance Policy	Law N° 09/2013 of 01/03/2013 (the "Regulations) contain several potentially restrictive provisions, for instance: • Companies applying for licenses are subject to a minimum fleet size requirement (i.e. if a company owns less than the specified number of vehicles, no license may be issued). • The Licensing Board is empowered to set tariffs and such tariffs form part of the licensing conditions. • The Licensing Board may interfere in the market's price setting function. • Road User Charges levied on foreign registered vehicles entering Burundi are not in Harmony with those levied by the other EAC-	Review of the law to amend provisions that encourage restrictive trade practices in the licensing practices. Review of the current law on licensing legislation and harmonization of the same with the provisions of the EAC Tripartite Agreement Adoption of a qualitative regulatory framework for qualitative approach for vehicle licensing Adopt the Road User Charges provided for under the EAC-CMA and EAC-CM Regulations

Partner States of Kenya, Tanzania and Uganda

D Tanzania

Applicable licenses	Impediments	Potential improvements
Carrier's license Operator decal ("sticker") Transporters license Transit license Driver's s license Third Party Liability Insurance	Lack of quality control standards.	• Establishment of a institutional framework for issuance of licenses • Timely processing and issuance of licenses • Update of the current law on licensing legislation and harmonization of the same with the provisions of the EAC Tripartite Agreement • Transfer of licensing functions from TRA to a road transport regulatory agencies to create a framework for qualitative regulatory approach for vehicle licensing. • Operator registration as a precursor to progressively introducing qualitative regulation.

E Uganda

Applicable licenses	Impediments	Potential improvements
Carrier licenses Drivers Permit Third party risk Insurance Policy	Requirement by Uganda Police for foreign registered carriers to have a COMESA insurance certificate. Drivers of foreign registered vehicles that obtain insurance cover from the local Uganda Insurers are not recognized unless it is a COMESA Insurance cover. There is lack of a harmonized transit goods license issued by DRC. There is a multiplicity of agencies in DRC that issues various forms of licenses, as a result it has been a hindrance for the other Northern Corridor member States to recognize the transit carrier licenses issued by DRC.	Adoption of a qualitative regulatory framework for qualitative approach for vehicle licensing

6.4.4.4 Ease of gaining Multi-Modal Licenses in EAC-CMA Member States

The Table below sets out the degree of ease of obtaining road transport licenses in the EAC Countries for vehicles operating on the Northern and Central Corridors. All the EAC Partner States issue licenses to vehicles for conveying goods subject to customs control based on the EAC-CMA and EAC-CM Regulations. Once the laws under the EAC-CMA are approved there is no further need for domestication (they take immediate effect for implementation unless the supporting regulations are not yet in place).

Table 6-17 Overview of licenses related to road transportation

License	Burundi	Kenya	Rwanda	Tanzania	Uganda
Vehicle carrying goods under customs control	yes	Yes: severe restrictions	yes	Yes, more flexible than Kenya	yes
Transit vehicles	yes	Yes	yes	yes	yes
Authorization permit	-	Possibly, not officially (complain from Uganda)	-	-	-
Operator registration	Yes	-	-	Yes, basis for quality standards	-

6.4.4.5 Findings and Recommendations

A Findings

The foregoing assessment of the existing legal and regulatory framework on which the licensing of road transport services is anchored reveals the following findings.

A. Regulatory gap in Road Transport

Despite the fact road transport accounts for more than 90 percent of all transport in all East African Community member states, there is a legal vacuum in the road transport sector, as measures have not yet been introduced to replace the former system of quantitative regulation with qualitative regulation. This situation is most prominent in Kenya and Uganda and to a lesser extent in Tanzania.

Kenya has devolved authority over road transport licensing to the KRA, while Uganda has not yet implemented the regulatory regime envisaged in its 1998 legislation. Tanzania abandoned its previous regulatory system, and is only now taking steps to introduce operator registration as a precursor to progressively introducing qualitative regulation. Both Burundi and Rwanda are contemplating new regulatory measures, but unfortunately the proposals under consideration reverse the proposed market access liberalization envisaged under regional agreements. In Rwanda, the regulation introduces measures that have potential anti-competitive effects.

The lack of regulation has several negative consequences:

a) Due to low or non-existent entry barriers, it remains easy for fly by night operators with old, unsafe vehicles to enter the market. Thanks to low overheads (as a result of deferring maintenance of vehicles, etc), these operators are able to engage in cut throat competition and undercut larger, more established carriers. The net effect is to lower service standards and to perpetuate high levels of vehicle breakdown and general lack of road safety.
b) Low quality levels in the industry increase the risk perception of financiers (banks, etc). This translates into an unwillingness to provide credit for capital investment and/or higher interest rates putting upward pressure on transport prices.
c) In the absence of a clear policy on qualitative regulation, governments have also not invested in developing data management systems to support licensing activity. Authorities do not have access to real-time information on carriers, drivers, vehicles, transport capacity and other market indicators (although states like Tanzania are implementing measures to overcome this). This has severe consequences for authorities' planning abilities. Moreover, it implies that they are unable to manage issues such as competition between local and foreign truckers as they have no access to reliable data on supply and demand in the market. Law enforcement is also seriously compromised. In the absence of accessible data linking vehicles to owners/carriers, authorities have no ability to weed out offenders, e.g. by linking access to permits with a good record of complying with traffic regulations such as vehicle load limits.
d) Poor competition climate. As market participants are not subject to similar criteria, competition between large and small firms is distorted. The benefits of regional agreements aimed at liberalizing access to the cross-border market are not secured. As most governments are not building domestic regulatory capacity, their ability to regulate the international market is similarly compromised.
e) Lastly, the regulatory gap creates an environment where non-transport related issues start to dictate market behavior. This is the case with the licensing regime for transit goods and the transport of goods under customs control.

B. Lack of Harmonized Road Transport Licenses And Permits

The East African Community member States are parties to other economic integration blocs, for example, COMESA and SADC, which have a different outlook on the regulation of road transport. For Instance, Kenya, Rwanda, Burundi and Uganda are COMESA member States while Tanzania is a SADC State party. However, all five East African Community States are parties to the East African Community. The effect of this multiple membership to economic integration blocks is a conflict and sometimes a duplication of regulatory requirements.

C. Distorting Effects of Customs Regulations

The regulatory vacuum has also meant that policy towards road transport has been dictated by the tax collection concerns of revenue authorities. While these concerns may be legitimate, revenue authorities are not technically competent to formulate policy for road transport, nor able to implement regulatory frameworks aimed at stimulating efficient service delivery, ensuring cost effective operations and promoting operator, driver and vehicle safety. The decision by the Kenya authorities to transfer all regulatory functions to the KRA appears particularly ill advised. The impact of the licensing regime in Kenya and Tanzania being implemented by the revenue authorities is a major constraint to the efficient use of transport equipment and a contributor to the high transport costs that burden the region. The restrictions imposed on the ability of carriers to freely utilize vehicles licensed for cross-border operations, reduce efficiency and raise costs. A better compromise needs to be achieved between concerns to prevent revenue loss and optimal usage of transport equipment.

B Recommendations

A broad range of limitations has been identified in the foregoing parts of this study. Based thereon the following recommendations have been identified to improve the licensing and regulatory practice related to road transportation in the EAC member states.

1. The EAC member states must take prompt action to implement the EAC Tripartite Agreement on Road Transport on the Northern and Central Corridors and for all other road transport between their territories using other routes. The Adoption of an EAC Road and Transport and Traffic Act and its subsequent domestication of the same by the member States in their jurisdiction would facilitate the implementation of the EAC Tripartite Agreement. The proposed Act should include provision to deal with, inter alia,
   a) Revision of existing legislation (or the adoption new legislation) to domesticate the Agreement in the national laws of the member states;
   b) Design of uniform license application, adjudication and issuing procedures and forms;
   c) Design and adoption of license administration software systems and procure hardware;
   d) Training of personnel in the handling of applications, adjudication and issuing;
   e) Training of law enforcement officers in the application of on-the-road enforcement of the rules under the Agreement;
   f) Development of uniform transport supply and demand capacity to manage competition between carriers from different states; and
   g) Uniform monitoring and evaluation criteria.

2. EAC member States must harmonize road transport policies and adopt a common regulatory regime for road transport aimed at raising quality standards and improving safety. The proposed regulatory regime should envisage:
   a) Transfer regulatory power away from KRA and TRA.
   b) Design of features of the regulatory system through a process of stakeholder consultation;
   c) Development of an appropriate institutional framework;
   d) Drafting of an EAC Road Transport and Traffic Act and implementing subsidiary legislation;
   e) Definition of a standard for access to the road transport profession;
   f) Development of procedures for evaluating applicants and issuing operator licenses;

g) Design of support software and procure hardware to operate a multi-module database;
h) Conduct of training of regulatory and law enforcement personnel; and
i) Formulation of a monitoring and evaluation.

3. Phase out the license conditions whereby transit vehicles and vehicles carrying goods under customs control may not be used for domestic and other types of carriage must be phased out and find a better compromise between concerns to prevent revenue loss and optimal usage of transport equipment. In this regard, EAC should seek to facilitate discussion between revenue authorities, transporter associations and transport ministries in order to arrive at a suitable arrangement.

   The license conditions whereby transit vehicles and vehicles carrying goods under customs control may not be used for domestic and other types of carriage must be phased out. It must be recognized that the current situation arises from legitimate concerns on the part of all stakeholders: (a) customs authorities wish to combat illegal dumping of import goods which are transported under bond and destined for export while (b) transporters are concerned with optimizing their investment in transport equipment. To this end, it is recommended that the EAC facilitate discussion between revenue authorities, transporter associations and transport ministries in order to arrive at a suitable arrangement. In this regard, the approach adopted by the TRA to permit transit vehicles to load backhauls from domestic destinations provided that the vehicle travels the same route and complies with customs clearances at destination, offers a starting point, which could be emulated in other countries.

4. Kenya should reconsider its restriction on market access for foreign trucking firms to abolish non-tariff trade barriers and promote competition of regional players.

5. All EAC member States should revise their legislation to (a) implement the REC-approved load limits and (b) adopt the administrative system of overloading control. Two options are available:
   a) revision of individual national laws (a lengthier process, but with more national buy-in) or
   b) the adoption of an EAC Act on Vehicle Overloading Control (may be a speedier route to adopting a regional benchmark, but must be accompanied by thorough national consultation to ensure buy-in by all states)

6. All EAC member States should adopt within their jurisdictions qualitative regulation of road transport. Qualitative regulation focuses on promoting intermodal competition through measures which allows each mode to exploit its inherent advantages and seeks to raise standards in service quality by focusing on carrier qualifications, financial standing and management capacity. Advantages of a Qualitative Approach to Licensing include, inter alia,
   a) Improved creditworthiness of road transporters and increased access to credit (reduced perception of risk on part of banks);
   b) More effective marketing of transport services to customers;
   c) Improved service (cost, timeliness of delivery);
   d) More effective competition;
   e) Lower transport costs;

f) Improved road safety (better trained drivers / less mechanical failures);
g) Improved compliance with traffic laws and vehicle loading limits; and
h) Increased options to introduce self-regulation and reduce the regulatory burden.

In addition to the benefits outlined above, introduction of qualitative regulation can also help to address a number of other issues which states have individually flagged as concerns in their transport policies. These include:

a) The need to guard against anti-competitive practices, such as tariff collusion.
b) The need for effective data collection and management systems to build profiles of carriers, vehicles and drivers. Such systems are essential for better enforcement, countering practices such as overloading and improving standards of vehicle maintenance, safe operation and safe driving (the need for better and more relevant road transport data in Tanzania has, for example, prompted SUMATRA to introduce an annual registration requirement for all freight operators in 2008).
c) Managing capacity in the regional market. The road transport market is dominated by carriers based in Kenya and Tanzania. Authorities in other states have a legitimate concern to promote the growth of their domestic transport industries and to seek a balanced share for those industries in the regional market.
d) Effectively administering regional transport agreements.

7. As noted above, Kenya has reserved the right to restrict transport firms from other EAC states to establish a commercial presence in Kenya. No other EAC state imposes such restrictions. It is recommended that Kenya reconsider its restriction on market access for foreign trucking firms. An open market in trucking services has demonstrated benefits in terms of improved transport efficiencies and maintaining competitive pricing in Southern Africa. Similar benefits are likely to be captured once the Tripartite Agreement on Road Transport is implemented.

8. Other recommendations to improve road transport:
   i) Interconnect the road networks both at the national and the regional levels so as to facilitate easy access to all sectors of economic and social interest. Furthermore, establish interconnectivity of the Regional Corridors with other African Corridors.
   ii) Establish and apply common standards relating to design, construction and management of road infrastructure based on a Regional Transport Infrastructure Master Plan.
   iii) Promote Public-Private-Partnership (PPP) in the construction and/or the management of road networks in the region.
   iv) Establish Road Side Stations/parking facilities furthermore to promote safety at these facilities parking zones for trucks transporting dangerous products such as petroleum products and explosives should be clearly separated from those of trucks transporting other products.
   v) Harmonize national plans relating to road and border infrastructure to ensure the quality of trans-border road infrastructure and develop joint border transport infrastructure facilities for the handling and clearance of vehicles and persons.

Adoption of above recommendations is a necessity to stimulate intra EAC trade and associated economic development; and enable an efficient use of the corridor infrastructure.

7. OVERVIEW OF SECTOR INSTITUTIONS

7.1 INTRODUCTION

"This sub-task will furnish an overview of the sector authorities cross the region, and a description of their roles, functions and responsibilities. The purpose is to describe the current organizational framework for operations in the sector, and improvements that need to be made to facilitate the introduction of an integrated rail-centric intermodal service. Particular attention needs also be given to the effectiveness of current organizations, staffing levels, and capacity to undertake sector planning, needs assessments, prioritization, budgeting, environmental management, and formulation of improvement projects to introduce, regulate, operate and maintain an integrated rail-centric intermodal service in the region and the potential of private sector capacity for operation and maintenance a subsequent service." (ToR)

Background information on the analysis is included in the appendix. The Consultant has collected data from interviews with stakeholders. The sector institutions are categorised along the EAC countries. The Consultant is expecting additional data that will strengthen the assessment in this chapter.

7.2 SECTOR INSTITUTIONS

7.2.1 EAC region

Institution	Role / functions / responsibilities	Comment on Capacity[1)]
EAC Secretariat	-Policy making on EAC matters -Harmonisation of different national policy positions -Dispute resolution and mediation -Facilitation of interaction and exchange between member States -Maintain data bank of programs, projects and statistics	-Still short on technical personnel on long term basis -Failed to marshal other sections of East African Community such as private sector into pushing the harmonisation agenda -Highly dependent on the goodwill of Heads of State on initiating proactive programs
EAC Legislative Assembly	-Enact legislation on EAC matters -Consolidate and integrate member state aspirations into law -Create regulations and rules of operationalising laws	-Well constituted and has done well in legislating relevant laws
EAC Heads of Summit	-Provide leadership and articulation of member states -Commit member states to enactments of EALA by assenting to them -Protect and promote member states sovereignty -Promote and disseminate EAC positions to their respective country men	-Not consistent in agenda and depend on leadership of one of them at given time -Failed to maintain an all East African implementation approach and resorted to partial compliance
EAC Council of Ministers	-Provide technical support to Heads of State Summit -Ensure Treaties and Agreements are in line with respective government policies	-Prone to political considerations and dictates of the Heads of State -Well intentioned and constituted but has challenges in pushing through recommendations in face of political considerations
NCTTA Secretariat	-Intergovernmental Agency -Coordinates activities on Northern Corridor -Promotes trade and free movement of goods and services -Facilitates PPP engagements -Provides data bank of projects and programs	-Very effective and proactive with good partnership links -Effective and well manned secretariat -PPP Department very ideal for project formulation and implementation -Well organised funding structures
CCTTA	-Intergovernmental Agency -Coordinates activities on the Corridor -Promotes trade and free movement of goods and services -Provides data bank of projects and programs	-Still depends on ADB grant therefore vulnerable -No PPP specific initiative in structures -Relatively young and weaker than NCTTA
PMESA	Port management and interlinkages on best practices	

1) Effectiveness of current organizations; staffing levels; capacity to undertake sector planning; needs assessments; prioritization; budgeting; environmental management

7.2.2 Burundi

Institution	Role / functions / responsibilities	Comment on Capacity[1)]
Burundi Revenue Authority	Licensing of vehicles and transport related activities	-Thinly staffed and low technical capacity -Not technically equipped to administratively effect licensing
Ministry of Rural Development	Ministry of Rural Development (MDR), which is responsible for rural road infrastructure comprising unclassified communal and feeder roads, supported by local government agencies and municipalities	
Ministry of Transport, Post and telecommunications	The Ministry of Transport, Post and telecommunications is responsible for transforming transport sector policy in Burundi through road transport delivery services and mobility.	
Ministry of Public Works & Equipment	The Ministry of Works and Equipment (MTPE), which is responsible for classified road infrastructure development and management.	
Roads Office	-Infrastructure development and maintenance	-Lacks corporate independence from Ministry and governance structure -Subject to Ministerial budget for funding
Roads Fund Board	-Financing infrastructure development and maintenance	-Lacks corporate personality to act independently -Not mandated to collect the fuel levy -Limited to budgetary allocations from Ministry for operations and capacity building

7.2.3 Kenya

Institution	Role / functions / responsibilities	Comment on Capacity[1)]
KENYA		
Kenya Maritime Authority	-Registration, licensing and regulating maritime transport	Well equipped and manned
Kenya Revenue Authority (KRA)	-Registration and licensing of vehicles, included the licensing of commercial goods and passenger vehicles	Not equipped to improve road efficiency Current rules severely constrain the cost-effective use of transport equipment and entail a significant extra cost for the trucking industry Undertakes licensing largely as a revenue-protection activity
Kenya Pipeline Company	NA: licensing of goods vehicles abolished since 2006 with introduction of fuel levy	licensing entailed that the TLB could undertake enquiries into a license holder's "reliability" and "financial stability" as a means of regulating the quality of transport services offered in the market
Kenya Ports Authority	Management of Ports	Well equipped and manned
Kenya Railways Corporation	Licensing and regulation of rail services	Had been run down and now on recovery but still early to evaluate
Kenya National Highways Authority	Management and maintenance of Highways and international roads	-well equipped but not properly mandated on regulating licensing

7.2.4 Rwanda

Institution	Role / functions / responsibilities	Comment on Capacity[1)]
RWANDA		
Rwanda Utilities Regulatory Agency (RURA)	Road transport regulation, including verifying that operators have adequate financial means to finance their operations, protecting users from anti-competitive practices and ensuring that operators comply with legal requirements governing their operations.	-Well equipped but without final control over licensing is short handed
Rwanda Revenue Authority	Licensing transport services and collection of customs	Not technically equipped to administratively effect transport licensing
Rwanda Development Board	Facilitation of investment and regulation	-Well manned and given full mandate. -Quite effective and proactive in facilitating ease of investment and lessening beuraucracy

7.2.5 Uganda

Institution	Role / functions / responsibilities	Comment on Capacity[1)]
UGANDA		Comment on Capacity[1)]
TLB	licensing of goods vehicle transport based on Traffic and Road Safety Act, 1998	the licensing of goods vehicles has not yet been introduced as the necessary capacity still needs to be developed within the Ministry. The establishment of a multi-sector transport regulator has been proposed and in future this function may be assumed by the regulator.
Uganda Revenue Authority	Licensing of vehicles and transport related activities	Lacks technical capacity to effect administrative licensing
Uganda Railways Corporation	Licensing and regulation of railway services	-Had collapsed and now under revival so not yet able to ascertain capability
Uganda National Roads Authority	-Development and maintenance of road infrastructure on national and regional level	-Not mandated to collect the fuel levy -Limited to budgetary allocations for capacity building and programs -Poor criteria for Board membership not emphasising technical value addition

7.2.6 Tanzania

Institution	Role/functions/responsibilities	Comment on Capacity
Sumatra	-Licensing, regulating and coordinating transport services -Carrying out research and providing policy advise	-Well mandated -Has proper governance structures -Has been in operation for a relatively short time
Tanzania Port Authority	Management of the port of Dar es Salaam	Well mandated equipped and has demonstrated track record
TANROADS	-Maintenance and development of trunk and regional roads	-Well structured and mandated & exhibited good track record

8. REVIEW OF SECTOR POLICY

(Yet to be analysed as an update in week of 11 November)

8.1 INTRODUCTION

"The focus of this sub-task is to review the current policy framework at national and regional level, vis-à-vis intermodal transport. The review is intended to describe the current policy framework, the degree of compliance of domestic policy with regional policy, and identify any changes, or potential impediments, at either level, to the introduction of an integrated rail-centric intermodal service. This should include customs clearance procedures/policies related to transit cargo by road and rail. The review will also assess any divergence between the frameworks and implementation." (ToR)

8.2 CURRENT POLICY FRAMEWORK

In 2011 Nathan Associates has carried out an extensive review of the transport policies of the EAC countries. Extracts from the findings are presented in the grey boxes in the subsequent chapters. The 2011 analysis to a large extent is still applicable. The Consultant has provided an update on the summary of the issues noted in Table 4 1 'Summary table national transport policy issues'. The Consultant is still in the process of receiving input from the relevant stakeholders on transport policy to provide a full update on the presented findings.

8.2.1 General

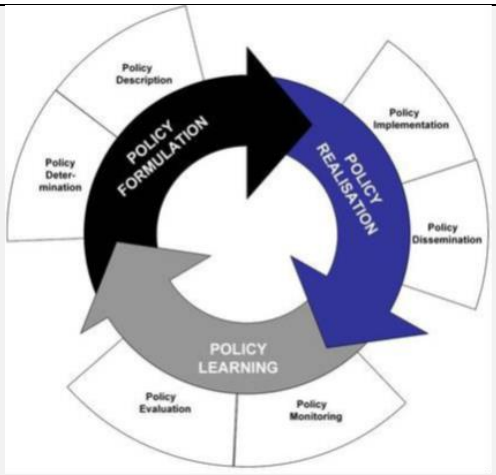
Existing transport policies in the EAC states differ in terms of their scope and currency. Kenya adopted a detailed policy in 2009, while Rwanda has a more concise policy dating from 2008. Uganda's policy was developed in 2001, but never formalized. It was, however, updated alongside the development of a national transport master plan in 2009. Tanzania has an outdated policy adopted in 2003 which is currently undergoing revision. Burundi has adopted a sector policy for the period 2006–2010.

Three trends in policy development and implementation among the states are worth mentioning. It is noticeable that the process of policy development tends to be lengthy. For example, Kenya embarked on its policy development in 2004 and only finalized it in 2009. Tanzania has waited seven years before embarking on the development of a new policy. After almost 10 years, a final policy has still not been adopted in Uganda. The lengthy policy development and approval process comes at a cost: (a) while policy is under development, government programmes tend to be "stalled" until the outlines of future policy become clear and have received formal approval and (b) at times, events overtake policy and the policy no longer responds to practical reality. Both mean that ministries and officials are often left to work in a policy "vacuum". The danger is that governments may then tend to react to events and adapt policy ex post, rather than to formulate specific policy goals and proactively implement programmes to achieve them.

A second observation is that little attention appears to be given to ongoing policy monitoring and review. As Figure 2 shows, policy-making is a continuous process. Once adopted, a policy can become outdated fairly quickly (as events in many states illustrate). For this reason, policy-makers need to build in mechanisms to monitor policy implementation. Policy revisions are sometimes needed frequently to respond to changing realities. This point is illustrated by Tanzania's 2003 policy. Due to its age, it does not reflect many of the far-reaching reforms implemented in the transport sector since its adoption. In many respects, the document can no longer provide guidance to planners and implementers on the future direction of Tanzania's transport sector. Ideally, the policy should be a dynamic document guiding the day-to-day programmes of the government and providing benchmarks and performance indicators to measure progress with policy implementation.

A third trend worth noting is the lack of coordination and complementarity between the transport policies of the various states. In terms of Art 89 of the EAC Treaty, the member states have committed themselves to developing harmonized and complementary transport policies. Despite this commitment, it appears that each state still approaches policy development purely as a domestic exercise. There is little evidence that policy development occurs with reference to developments in partner states. As a result, the policies do not speak to each other, nor do they reflect common approaches to implementing the commitments which the states have assumed under the Treaty and its various subsidiary instruments.

BURUNDI



Burundi has a sector policy for transport, postal services and communications for the period 2006 – 2010.

A central theme of the policy is Burundi's land-locked status. Accordingly, it prioritizes investment in road transport, lake transport and civil aviation to facilitate the country's exports and well as imports of inputs for the local market. The main constraints to international surface transport are identified as: the decayed state of infrastructure; the lack of transport fleet and equipment; and physical and administrative constraints on road corridors. Aside from Burundi's land-locked status, the policy identifies the main challenges as being:

- Lack of economic development of the country;
- Weak levels of regional integration;
- High transport costs;
- Lack of progress in negotiating arrangements to facilitate transport with neighbouring states acting as transit routes;
- The political crisis in Burundi since 1993;
- The weakness of the local transport industry in the face of foreign competition; and
- The need to renew and modernize transport infrastructure and equipment.

The policy devotes particular attention to international road transport. The Central Corridor carries between 75-80 percent of goods originating from or destined for Burundi. Principal constraints on this corridor are: the decayed state of railway infrastructure (in Tanzania) and the lack of transport equipment in Kigoma (Tanzania). By contrast, the Northern Corridor is identified as being characterized by several physical and non-physical barriers, in particular the need for police escorts in Kenya which increase both travel time and cost. The policy highlights that Burundi's interests diverge from those of transit countries (Kenya/Tanzania) as many of the constraints are related to fiscal concerns in those states.

Given these concerns, Burundi's policy emphasizes the need to engage neighbouring states actively - both on a bilateral basis and through regional institutions – in order to address barriers to corridor efficiency. Specific actions proposed in the policy are mostly institutional in nature. They include:

- Engaging Tanzania to encourage the rehabilitate the port of Kigoma and the railway line to Dar es
- Salaam;
- Re-activating the bilateral technical committee with Tanzania to address issues related to Central
- Corridor;
- Finalizing the negotiation of the Central Corridor Agreement (which has subsequently been concluded); and
- Strengthening the Secretariat of the Northern Corridor Transport and Transit Authority and revising the NCTTA Agreement (also subsequently concluded).

The policy does not link the state of the domestic road transport industry with Burundi's position in the international road transport market. It does, nevertheless, highlight shortcomings within the domestic industry which, if attended to, will impact the efficiency of services provided by Burundian truckers on the corridors. The policy identifies a need to better regulate road transport and to do so by adopting a law on domestic road transport ((which has been passed since). Issues to be addressed include: introducing a system of axle load control; providing for mandatory and periodic roadworthiness testing ("contrôle technique") and investing in a truck freight station. Amongst others, the policy emphasizes the need for the Ministry to develop capacity to improve transport planning and implement a freight transport database.

With regard to inland waterway transport, the policy identifies the following challenges:

- The decayed state of the fleet, infrastructure and equipment (and lack of port infrastructure);
- The reduction in water levels in Lake Tanganyika (as well as pollution by hydro-carbons);
- The lack of legislation governing inland waterway transport;
- Deficiencies in the management of the port of Bujumbura; and
- Lack of qualified personnel.

Particular measures which have been proposed for this sub-sector include:

- Adopting a Code for Navigation of Inland Waterways;
- Encouraging private investment and improving partnerships with lenders and transit countries; and
- Reviewing the concession agreement for the port of Bujumbura.

Investment is also proposed in improving infrastructure by dredging the lake ports, rehabilitating aids to navigation, constructing a secondary port at Rumonge and constructing the Isaka – Gitega – Musongati railway line. Long term proposals include constructing a free port at Bukumbura, constructing a rail link between Gitega and Bujumbura as well as the Grand Lakes railway (Kasama – Mpulungu – Bujumbura – Ruhwa – Bukavu/Goma – Kigali).

(Source: Nathan Associates 2011, p.47-51)

8.2.2 Burundi

Burundi has a sector policy for transport, postal services and communications for the period 2006 – 2010.

A central theme of the policy is Burundi's land-locked status. Accordingly, it prioritizes investment in road transport, lake transport and civil aviation to facilitate the country's exports and well as imports of inputs for the local market. The main constraints to international surface transport are identified as: the decayed state of infrastructure; the lack of transport fleet and equipment; and physical and administrative constraints on road corridors. Aside from Burundi's land-locked status, the policy identifies the main challenges as being:

- Lack of economic development of the country;
- Weak levels of regional integration;
- High transport costs;
- Lack of progress in negotiating arrangements to facilitate transport with neighbouring states acting as transit routes;
- The political crisis in Burundi since 1993;
- The weakness of the local transport industry in the face of foreign competition; and
- The need to renew and modernize transport infrastructure and equipment.

The policy devotes particular attention to international road transport. The Central Corridor carries between 75-80 percent of goods originating from or destined for Burundi. Principal constraints on this corridor are: the decayed state of railway infrastructure (in Tanzania) and the lack of transport equipment in Kigoma (Tanzania). By contrast, the Northern Corridor is identified as being characterized by several physical and non-physical barriers, in particular the need for police escorts in Kenya which increase both travel time and cost. The policy highlights that Burundi's interests diverge from those of transit countries (Kenya/Tanzania) as many of the constraints are related to fiscal concerns in those states.

Given these concerns, Burundi's policy emphasizes the need to engage neighbouring states actively - both on a bilateral basis and through regional institutions – in order to address barriers to corridor efficiency. Specific actions proposed in the policy are mostly institutional in nature. They include:

- Engaging Tanzania to encourage the rehabilitate the port of Kigoma and the railway line to Dar es
- Salaam;
- Re-activating the bilateral technical committee with Tanzania to address issues related to Central
- Corridor;
- Finalizing the negotiation of the Central Corridor Agreement (which has subsequently been concluded); and
- Strengthening the Secretariat of the Northern Corridor Transport and Transit Authority and revising the NCTTA Agreement (also subsequently concluded).

The policy does not link the state of the domestic road transport industry with Burundi's position in the international road transport market. It does, nevertheless, highlight shortcomings within the domestic industry which, if attended to, will impact the efficiency of services provided by Burundian truckers on the corridors. The policy identifies a need to better regulate road transport and to do so by adopting a law on domestic road transport ((which has been passed since). Issues to be addressed include: introducing a system of axle load control; providing for mandatory and periodic roadworthiness testing ("contrôle technique") and investing in a truck freight station. Amongst others, the policy emphasizes the need for the Ministry to develop capacity to improve transport planning and implement a freight transport database.

With regard to inland waterway transport, the policy identifies the following challenges:

- The decayed state of the fleet, infrastructure and equipment (and lack of port infrastructure);
- The reduction in water levels in Lake Tanganyika (as well as pollution by hydro-carbons);
- The lack of legislation governing inland waterway transport;
- Deficiencies in the management of the port of Bujumbura; and
- Lack of qualified personnel.

Particular measures which have been proposed for this sub-sector include:

- Adopting a Code for Navigation of Inland Waterways;
- Encouraging private investment and improving partnerships with lenders and transit countries; and
- Reviewing the concession agreement for the port of Bujumbura.

Investment is also proposed in improving infrastructure by dredging the lake ports, rehabilitating aids to navigation, constructing a secondary port at Rumonge and constructing the Isaka – Gitega – Musongati railway line. Long term proposals include constructing a free port at Bukumbura, constructing a rail link between Gitega and Bujumbura as well as the Grand Lakes railway (Kasama – Mpulungu – Bujumbura – Ruhwa – Bukavu/Goma – Kigali).

(Source Nathan Associates 2011)

8.2.3 Kenya

Kenya embarked on a transport policy review process in 2003 which culminated in the adoption of an Integrated National Transport Policy (INTP) in May 2009.

The INTP is a lengthy 241 page document. It covers all transport modes, including non-motorized transport, the use of information and communication technology in the transport sector as well as funding and health issues.

The policy contains several references to the Northern Corridor within the context of road transport, road infrastructure, railways, inland water transport and ports. A separate chapter is also devoted to "Integrating Transport Services with the National and Regional Economy". In this chapter, the government undertakes to strengthen implementation and monitoring mechanisms under the various regional transport agreements with reference to COMESA and the EAC. Unfortunately, the policy does not offer any critical analysis of the state of implementation of these agreements, nor does it indicate what measures are proposed to secure better implementation of its various commitments in future. This should be regarded as a significant failure in the policy, especially with regard to road transport, where the lack of implementation of regional agreements is one of the main constraints to improved transport efficiencies.

ROAD TRANSPORT

The policy commits Kenya to support the provision of low-cost, high quality freight services on the Northern Corridor for both domestic and transit traffic. It also adopts the objective of minimizing or eliminating non- tariff barriers (NTBs) to domestic and regional road transport. On the Northern Corridor, the following constraints are cited: high freight cost due to poor road conditions, excessive market power of big transport companies, corruption, multiple and high taxes on road transport, cumbersome customs procedures at Mombasa, lengthy waiting times at weigh-bridges, police road blocks and police escorts.

As potential solutions to these problems, the policy proposes fiscal incentives to encourage small and medium enterprises (SMEs) into freight transport, and a consolidation and reduction of taxes imposed on road transport. The policy also commits government to "protect" local truckers against transit (foreign) truckers, without spelling out how this is to be achieved. The policy states the intention to improve customs procedures through simplification of procedures, more use of information and communication technologies (ICTs) and the privatization of cargo verification and inspection. The elimination of NTBs such as road blocks, police escorts, etc is also proposed.

RAILWAYS

The policy affirms the importance of the railways sector for the Northern Corridor and acknowledges that its performance has been unsatisfactory due to the lack of investment by the government, the Kenya Railways Corporation (KRC) and the concessionaire. The current restrictive and overly-complex legal framework is identified as a constraint to the effective operation of the KRC. Amongst others, the present legal framework subjects the KRC to oversight from numerous government agencies and does not allow it the flexibility to promote private sector investment in the development and operation of the railways.

The policy commits government to monitor investment by the concessionaire more effectively, but does not offer solutions how the current lack of investment is to be remedied. In the longer term, the construction of a new standard gauge railway to both the ports of Mombasa and Lamu is proposed.

PORTS

The policy acknowledges that port operations are hampered by lengthy customs procedures and that these have impeded traffic growth over several years. Lack of transit facilitation also contributes to higher transit costs. Delays in cargo take-off from the port are also caused by poor transport infrastructure and poor turnaround times for trucks and railway wagons.

The policy proposes that these problems be addressed through upgrading of infrastructure and streamlining of customs procedures (This work has commenced with a joint initiative by the Kenya Port Authority (KPA) and the KRA to develop a new manifest management system. The system will integrate the KPA-KWATOS and KRA/SIMBA 2005 systems allowing for a sharing of data. The Government of Kenya has also embarked on a national single window system project to provide an integrated platform for the electronic exchange of data among port community users engaged in cargo clearance and documentation processes.

It further acknowledges that the present institutional framework of the port whereby the Kenya Port Authority (KPA) acts both as landlord and service provider, exacerbates inefficiencies. The restructuring of KPA into a landlord port authority and regulated private sector participation in stevedoring, storage and shore handling is proposed as a solution.

INLAND WATERWAYS

The policy highlights that the role of inland waterway transport on the Northern Corridor has been negligible largely due to low levels of investment in vessels. Most are broken down or have been disposed of. The railway concessionaire also took charge of the wagon ferry, but has struggled to rehabilitate it to an acceptable standard due to its relative age and other factors. Low levels of utilization of the waterways are compounded by the need for rehabilitation of jetties and approach roads. There is also a need to upgrade sections of the Nakuru – Kisumu branch line.

Measures proposed in the policy to address these constraints include: rehabilitation of port, road and rail infrastructure, promotion of private sector participation in operations, adoption of a comprehensive safety framework for inland waterway operations and a revision of the railway concession agreement to enable the concessionaire to comply with an appropriate standard for the wagon ferry. At present, steps are being taken to amend the Kenya Railways Act (which originally provided for the KRC to manage these ports) to enable the transfer of responsibility to the KPA.

(Source Nathan Associates 2011)

8.2.4 Rwanda

Rwanda adopted a Transport Sector Policy in December 2008. It is a concise (28 page), high-level document which offers a broad analysis of the problems and constraints faced by the sector to be addressed by a number of programs and strategies.

The policy emphasizes the impact of Rwanda's land-locked status. For this reason it is committed to supporting the implementation of the regional instruments governing transit on both the Northern and the Central Corridors. Surprisingly, given the importance of regional transit routes for Rwanda, the policy does not offer any analysis of how well these agreements have worked or how they may be improved.

Critical issues identified in the policy relevant to the two corridors are:

- High transport costs associated with Rwanda's land-locked status;
- Dominance of foreign trucking firms from Kenya, Tanzania and Uganda in Rwanda's transit trade; and
- Restricted financial resources for road maintenance. The policy proposes a number of specific strategies:
- A focus on specific corridors that offer the most economic routes, coupled with an effective road
- maintenance strategy based on multi-annual programming;
- Construction of "common" joint border posts;
- Use of electronic data interchange in customs transaction and electronic tracking of transit goods;
- Developing capacity within the Rwandan transport industry; and
- Assessing the feasibility of extending the railway networks of neighbouring states.

(Source: Nathan Associates 2011)

8.2.5 Tanzania

Tanzania adopted a National Transport Policy in 2003. The policy is now fairly dated, and a new policy is under preparation.

Since the adoption of the 2003 policy, several significant reforms have been undertaken in the transport sector. These include the establishment of a multi-sector regulator (SUMATRA), reforms in the road sector and the granting of concessions in significant sub-sectors (port terminals, railways and airports).

The policy addresses regional transport issues in a separate chapter entitled "International Transport Policy Directions". With regard to road infrastructure, the policy emphasizes the central role of Tanzania as a transit state. Hence, the policy commits government to develop infrastructure to assist the flow of goods and persons and to apply internationally-agreed rules on vehicle standards, axle loads, drivers, etc. With regard to road transport, the policy acknowledges that this is governed by international agreements, but that truckers still face various NTBs, especially at borders. Government undertakes to remedy this by harmonizing policy and rules with its neighbors, promoting market access in terms of international agreements and coordinating with border post agencies to minimize negative impacts on transit operations. With regard to port and railway operations, the policy affirms government's intention to continue to promote private sector participation to enhance efficiencies.

Due to its relative age, the policy is silent with regard to the outcomes of the reform initiatives mentioned above. Hence, there is no discussion, for example, of

(a) the performance of the Dar-es-Salaam container terminal since its concessioning or

(b) the outcome of the Tanzania Railways Corporation concession.

(Source: Nathan Associates 2011)

8.2.6 Uganda

Uganda adopted a draft Policy and Strategy Paper on the Transport Sector in December 2001. In 2009, a National Transport Master Plan was completed which updates the policy and strategy.

Due to its relative age, the policy is outdated and does not provide guidance in relation to many recent initiatives. For example, the policy only refers to plans to concession the railways and expresses the intention to establish an executive Road Agency (both of which have subsequently occurred).

With regard to the Northern and Central Corridors, the policy proposes that both corridors be utilized for international traffic to and from Uganda. It identifies the slow progress with ratification and implementation of regional treaties and agreements as one of the causes of the region's high transport costs. Other causes that are identified include: border crossings, unofficial road blocks, inefficient port operations and ineffective coordination of rail and ferry services on Lake Victoria.

With regard to road transport, the policy proposes to continue the existing de facto deregulation with prices being set by supply and demand in the market. In the inland watery sector, the policy proposes that all services be owned and operated by the private sector, subject to licensing and regulation to ensure adequate quality and safety standards. In common with the policies adopted by other states, the Ugandan document does not give any attention to measures that are needed in order to domesticate regional agreements in national law.

(Source: Nathan Associates 2011)

8.3 DEGREE OF COMPLIANCE OF DOMESTIC POLICY WITH REGIONAL POLICY

8.3.1 Overview

Table 8-1 Summary table national transport policy issues

Issue	Deficiency	Potential Impact on Corridor Performance	Recommended Actions	Update 2013
Currency, comprehensiveness and complementarity	• Some transport policies outdated • Lack of complementarity between policies • States not giving effect to commitment to develop a common transport policy under Art 89 of the EAC Treaty • Over-long policy development time	• Inaction by national authorities to implement measures to improve corridor performance	• Develop a Common Transport Policy to give effect to Art 89of the EAC Treaty adopting phased approach and commencing with road transport • Pending the development of a common policy align national policies to ensure greater complementarity • Appoint transport policy advisor at EAC Secretariat • Invest more human and financial resources in national policy- making, implementation and monitoring capacity	• Opted for partial implementation of aspects through piecemeal directives and domestication. • Attempts at harmonisation under AU still not fruitful • No information on this yet
Implementation of regional agreements	• Policies do not guide implementation of regional agreements by national authorities	• Facilitation benefits of regional agreements not secured • Inaction by national authorities to implement regional agreements • Potential threat of new NTBs being introduced	• Promptly implement EAC Tripartite Agreement on Road Transport and domesticate under national laws	• Implementation of axle load and weighbridge management in partial manner

(Source grey area: Nathan Associates 2011, see Appendix B for background)

8.4 IDENTIFY ANY CHANGES, OR POTENTIAL IMPEDIMENTS, AT EITHER LEVEL, TO THE INTRODUCTION OF AN INTEGRATED RAIL-CENTRIC INTERMODAL SERVICE

9. REVIEW OF FINANCING OF SECTOR

9.1 INTRODUCTION

"The focus of this sub-task will be to collect and collate trend data on expenditure, split by capital and recurrent and source, for the relevant modes within the transport sector in the five countries. The objective is to identify the level and source of financing within the sector organizations currently, and ascertain any shortfall to the financing (capex or opex) necessary to introduce, operate and/or maintain an efficient and effective rail-centric intermodal service. The Consultant will be expected to justify the economic case for provision of public money for opex shortfalls, and identify new sources or modalities in use elsewhere, that could be introduced to make up any shortfall." (ToR)

Gathering of information involved desk research on materials held by consultant, internet and library. Further data collection through meeting with stakeholders' for interviews, discussions, and information material. Email and telephone communications was made with relevant stakeholder individuals.

1. MTEF Budget Report FY2013/14 – 2015/16: Energy, Infrastructure and Information Communications Technology Sector, The National Treasury, Kenya
2. Budget Policy Statement, April 2013, Medium Term: The National Treasury, Kenya.
3. Budget Statement for the Fiscal Year 2013/2014 The National Treasury, Kenya.
4. SITP Intermodal Study (19 September 2011), Ministry of Infrastructure Development, Tanzania
5. Final TICP Report- Version 1.0.docx | 05 November 2012
6. EAC: Report on Priority Projects Identified at the 2nd EAC Heads of State Retreat Held on 29th November, 2012
7. EAC: Report on The 2nd EAC Heads of State Retreat on Infrastructure Development and Financing, 29th November, 2012
8. Estimate of Recurrent Expenditure, 2013/2014, The National Treasury, Kenya
9. Estimate of Development Expenditure, 2013/2014, The National Treasury, Kenya
10. Budget Statement, Financial Year 2013/14, Ministry of Finance and Economic Planning, Rwanda
11. Budget Statement, Financial Year 2013/14, Ministry of Finance, Planning and Economic Planning, Uganda
12. NC-TTCA, Northern Corridor Infrastructure Master Plan, May 2011
13. NC-TTCA, Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, April 2011

Stakeholders	Place	Date
Dr. Stephen Mogere, Infrastructure and Evaluation Advisor, JICA	Mombasa	8-11-2013
John Kimani, Chief Economist, Ministry of Transport & Infrastructure, Kenya	Nairobi	12-10-2013, 8,11, Nov 2013
Alfred Kitolo, Director of Infrastructure, Ministry of East Africa Community, Kenya	Nairobi	14-10-2013, 5,7,9 Nov 2013
The National Treasury	Nairobi	15-10-2013
S. Kaombwe, Transport Expert (telephone & email)	Dar es Salaam	16-10-2013, 4-5,

		Nov 2013
Hosea Nyangweso, EAC (telephone & email)	Arusha	16-10-2013 7, Nov 2013
Aloys Rusagara Head of Transport Policy and Planning, Transit Transport Coordination Authority of the Northern Corridor (NC-TTCA)	Mombasa	18.10.2013
Mohammed Faruk, Kenya Ports Authority	Mombasa	18-10-2013, 1 Nov 2013
Isaac Omoke, Kenya Ports Authority	Mombasa	19, 30, 31 Oct-2013
Weldon Korir, Kenya Ports Authority	Mombasa	21, 30, 31 Oct-2013
James Nganga, Infrastructure Manager, Trademark East Africa	Mombasa	7-8 Nov 2013
Fred Paul Babalanda, Northern Corridor Transit Transport Coordination Authority (NCTTCA)	Mombasa	23-10-2013

9.2 SUMMARY OF CHALLENGES REGARDING FINANCING

The following are the challenges identified as possible impediments to the development and operation of transport infrastructures in the region:

i) Inadequate regional capacities (human, financial and technical) to coordinate and develop a sustained pipeline of infrastructure projects.
ii) Weak or underdeveloped capital and financial markets in the region, with operations that are not harmonized.
iii) High cost of doing business as documented by several studies by financial institutions and the private sector.
iv) Low governance indices in matters like corruption and business environment among others.
v) Heavy reliance on scarce public financing, with low private sector participation in the development of major infrastructure projects in the region.
vi) Laws and policies that are not harmonized to enable regional investments in infrastructure – procurement, construction, standards among others.
vii) Huge backlog in infrastructure investments that delays the realization of the full and immediate impacts of the current infrastructure investments.
viii) Lack of an EAC investment strategy incorporating well packaged infrastructure projects, proposed investment and ownership structures, timelines, risks, and government contributions and guarantees.
ix) Perception of risks (financial, security, political etc.) in the region
x) Lack of a well-structured regional fund to finance regional projects
xi) Environmental sustainability requirements
xii) Vandalism of infrastructure facilities.

9.3 OVERVIEW TRANSPORT EXPENDITURES WITHIN EAC COUNTRIES

The development of various aspects of infrastructure in the EAC region remains a challenge. However, significant progress has been made in roads, railways, and ports infrastructures with the following achievements in the Central and Northern corridors.

9.3.1 The Roads sub sector

i) Capacity expansion of the existing roads through rehabilitation, removal of urban bottlenecks, dualling of narrow and constrained sections among other forms of improvements to facilitate road transport in the region.

ii) In the case of the Central Corridor linking Dar- Es Salaam port with Rwanda, Burundi, Uganda and DRC, much of the 1,650 km has been upgraded/rehabilitated with the remaining portions expected to be completed between December, 2013 and December, 2014. Negotiations ongoing to prepare the upgrading of the Nyakanazi - Kasulu - Kidahwe - Mpanda road as a link for Bujumbura to the Central Corridor via the Mugina/Manyovu border. Feasibility Studies and Detailed Designs for the rehabilitation of the Kayonza - Rusumo - Lusahunga as multinational project commenced.

iii) On the Northern Corridor, progress has been made on the improvement of the road network with most of the road sections rehabilitated, expanded or dualled in the last five years. On the Mombasa – Kampala - Kigali road, most of the sections have been rehabilitated. Works ongoing on the following sections:- Timboroa – Eldoret and Webuye – Malaba sections, Malaba/Busia - Bugiri, Jinja Bridge, Jinja - Kampala, Kampala - Mpigi, Mbarara - Katuna/Gatuna - Kigali. A number of sections of the main Northern Corridor have been completed, including Kampala Northern Bypass (Phase I), Bugiri - Jinja, Masaka - Mbarara, Mpigi - Lukaya, Kabale - Kisoro, dualling of the Mombasa - Miritini (7km), Athi River – Rironi (56km) and Lanet – Njoro (14km).

iv) In addition, the construction of the Eastern and Northern bypasses within Nairobi Area had further reduced traffic congestion around Nairobi. The Southern Bypass is also under construction.

v) Other efforts to reduce time taken to cross the border points, through the one-stop border posts operations were ongoing at Busia, Malaba, Rusumo, Gatuna/ Katuna, Mutukula, Kabanga/Kobero, Holili/Taveta.

vii) In addition, preparatory activities including feasibility and detailed design studies are ongoing on several priority roads under the East African Road Network Project.

9.3.2 The Railways sub-sector

i) The East African Railways Master Plan was completed in February 2009. The Master Plan spells out the frameworks and priorities for the development of railways in the region. This facilitated development of a large number of feasibility studies, detailed designs and bankable railway projects that are identified in the Master Plan. Some of the completed feasibility studies and preliminary designs cover sections of the Dar-es-Salaam-Isaka-Kigali/Keza-Musongati line as well as Kenya-Uganda railway line (Mombasa-Nairobi-Kampala), which have been identified as some of the key priorities for rehabilitation or reconstruction and/or upgrading to standard gauge.

ii) The EAC and the AfDB signed a grant Agreement in December, 2012 for an amount of USD 1.2 million to cover the cost of conducting a study on the Railways Sector Enhancement Project. The Project aims at unpacking the East African Railways Master Plan and preparing bankable projects for investments and policy related documents to assist in the reforming of the railways sector in the region.

ii) Preliminary designs and site investigations for upgrading to standard gauge are being undertaken along the Tabora - Kigoma line.

iii) The Governments of the United Republic of Tanzania and the Republics of Kenya and Uganda had, in line with the recommendations in the Railways Master Plan, undertaken (Kenya/Uganda under the Concessionaire) investments in rehabilitating the two main railway lines while planning for major upgrading to standard gauge. Reported service improvements arising from these rehabilitations ranged from 20-40%;

iv) A number of important investors' fora had been held on the basis of priorities under the EAC Railways Master Plan, to shore up support for this sector, with a number of investors having shown keen interest once the investment structuring was agreed upon;

v) Feasibility studies and preliminary design studies have been carried out for the Lamu-Isiolo-Nadapa/Nakodok-Juba line as well as the Lamu-Isiolo-Moyale- Addis Ababa line, projects prioritised under the Tripartite IGAD Corridor Program. Ethiopia and S. Sudan have confirmed their commitment to the construction of the railway links in their countries;

vi) Uganda and Tanzania had entered into an agreement on the development of the Tanga – Arusha – Musoma Railway – New Kampala Port at Bukasa. Resource mobilisation for the feasibility and detailed designs is ongoing.

v) Rehabilitation of the MV Kaawa and the dry dock (3.6 million dollars). The project was completed in August 2012 and the ferry handed to Rift Valley Railways (RVR).

vi) Design and construction of a new rail container terminal/ICD at Mukono (8.7 Million dollars). Construction is underway and is expected to be completed in December 2013.

9.3.3 The Ports sub-sector

i) Substantial investment mobilization efforts have been ongoing for the Dar es Salaam and Mombasa ports in particular to enhance the container handling capacity of the ports and revitalizing the ports' equipment. Several initiatives are also in place to reduce the port dwell time for freight by addressing the documentation processes, payment procedures and coordination between the ports stakeholders. Both ports are advancing the 24/7 process to relieve the congestion.

ii) The Terms of Reference have been approved for a study on the EAC Ports and Maritime Strategy to guide the development of ports, inland waterways and effective maritime legal and regulatory framework to support water transport in the region;

iii) Proposals developed for new ports such as the, Mbegani (Bagamoyo), Mwambani (Tanga), Lamu, New Kampala at Bukasa.

iv) Upgrading of existing ports at Bujumbura, Rumonge, Jinja and Port Bell;

9.3.4 TANZANIA

Financing of infrastructure investments by the government come from the general taxation, grants and loans from both internal and external sources deposited in the treasury/exchequer. Development partners also make contribution to specific projects rather than through the exchequer. Other public funds available to the transport sector include money collected through the road user charges (mainly fuel levy) and deposited in the dedicated and ring-fenced road fund account managed by the road fund board comprising public and private sector representatives. In addition, local government authorities collect moneys from their own sources and deposit in their own accounts operated outside of the exchequer system. Both the recurrent and development budget for the transport sector is further allocated to the various sub-sectors.

The table below shows budget allocation to transport infrastructure sector for years 2009 2010 and 2010/2011. Roads accounted for the largest share and received 46% of the infrastructure sub-sector budget allocation.

Table 9-1 Approved FY 2009/10 Government Budget Allocation to Infrastructure Sub-sectors (Billion Tshs)

YEAR	2009/10				2010/11			
ITEMS	Recurrent	Development	Total	Share %	Recurrent	Development	Total	Share %
Roads								
· *National*	198.9	445.3	644.2	59%	444.6	239.5	792	42%
· Districts and Urban	104	62.6	166.6	15%	15	54	69	4%
· MCC	0	93.1	93.1	8%	0	9.5	9.5	0%
Total	302.9	601	903.9	82%	459.6	303	870.5	46%
Non-Roads				0%				0%
Aviation	36.6	77.1	113.7	10%	34	133.3	167.3	9%
Maritime Transport	0	7.5	7.5	1%	0			
Railways	0	10.9	10.9	1%	0			
Public Buildings	2.6	16.1	18.7	2%				
Other	32.8	13.6	46.4	4%				
Total – Non-Roads	72	125.2	197.2	18%				
Grand Total	374.9	726,2	1101.1	100 %			1908.3	100%

Source: SITP Intermodal Study (19 September 2011), Ministry of Infrastructure Development, Government of Tanzania

Publicly owned institutions, which receive allocations from the central budget including support from the development partners, secure investment funds from other or "own" sources, especially revenues from their commercial operations activities, from their private partners or other credits.

9.3.5 UGANDA

The government priority in the development of transport infrastructure sector, and has been increasing budget allocations. The roads and works sub-sector in FY 2013/14 was allocated Shs 2,395 billion (Uganda shillings), an increase by 45% from the previous budget of Shs. 1,650.8 bn in FY 2012/2013. The key interventions include the construction and rehabilitation of selected major strategic national roads, new bridges, equipping local government road units, and the maintenance of district and community roads. This is aimed at improved access and exit from agricultural areas to stimulate agricultural production, improving connectivity to Tourist sites and facilitating national and regional trade along major highways.

On road maintenance, government makes allocations to the Uganda Road Fund to enhance funding for national road maintenance. Total allocation of

Shs 352.98bn was made to the Road Fund in FY 2013/14 for routine maintenance and removal of bottlenecks on roads. The government has established the Uganda National Roads Authority construction and maintenance works is carried by the.

There are proposals to amend Road Fund Act to ensure adequate and timely provision of funds for road maintenance and rehabilitation, as this will increasingly require support given the large investments in road development.

There are also government priorities to allocate expenditures to rehabilitate the country's railway network, and improve the quality of water transport on the major water bodies. On the Northern Corridor, government expenditures will be made on the following interventions to revitalize railway transport:

i. Fast-tracking the rehabilitation of Tororo- Packwach and Kampala Kasese railway lines;
ii. Commence design of Gulu – Atiak – Nimule – Juba railway, to be constructed jointly by the governments of Uganda and South Sudan;
iii. Complete design of the Standard-Gauge Kampala–Malaba railway line (251km).

Government expenditures priority are high to revitalize Lake Victoria by rebuilding port infrastructure and carrying out a definite navigational survey as well as environmental measures that will enable the Lake to become a major waterway by facilitating and lowering the cost of transport to both domestic and regional destinations. Development of water transport on Lake Victoria will enable the following objectives to be met:-

i. Ensure a strategic alternative route to the sea
ii. Facilitate transportation of agricultural around the Lake and to Ocean ports
iii. Support Uganda's geographic location to be inland distribution hub to Rwanda, Burundi, South Sudan and DRC

The rehabilitation of the Marine Vessel Kaawa was completed in FY 2012/13, and operates between Port Bell and Mwanza.

9.3.6 KENYA

There has been a high priority with increasing expenditures on investment in in roads and transport infrastructure to drive economic growth, job creation and deepen links with regional partners as shown in the following table.

Table 9-2 Expenditure by Programme 2013/14 – 2015/16 (Kshs. Million)

	Actual Expenditure		Approved Estimate	Estimates	Projected Estimates	
Programmme	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Road Development, Maintenance and Management	71,401	86,873	124,764	102,142	101,025	104,076
Transport Management and Safety	3,544	3,865	4,336	4,571	5,092	5,143
Transport Infrastructure Development	3,359	4,135	14,187	41,899	40,772	42,482

Source: Budget Policy Statement, April 2013, Medium Term: The National Treasury, Government of Kenya

Table 3 below shows the analysis of the recurrent and develoment expenditures. The actual recurrent expenditure increased by 28% from Kshs. 24,255 million in FY 2009/10 to Kshs. 31,013 million in FY 2011/12.

Table 9-3 Analysis of Recurrent and Development Expenditures (Kshs. Millions)

	Approved/Budgeted Estimates			**Actual Expenditures**		
Programme	**2009/10**	**2010/11**	**2011/12**	**2009/10**	**2010/11**	**2011/12**
RECURRENT						
Road	21,852	23,691	27,201	20,969	23,606	27,191
Transport	3,389	3,568	3,968	3,286	3,431	3,822
Sub-total	**25,241**	**27,259**	**31,169**	**24,255**	**27,037**	**31,013**
DEVELOPMENT						
Road	58,491	66,528	77,111	36,577	47,795	59,682
Transport	5,792	6,828	13,906	3,548	3,472	4,178
Sub-total	**64,283**	**73,356**	**91,017**	**40,125**	**51,267**	**63,860**
TOTAL	**89,524**	**100,615**	**122,186**	**64,380**	**78,304**	**94,873**

Source: MTEF Budget Report FY2013/14 – 2015/16: Energy, Infrastructure and Information Communications Technology Sector, The National Treasury, Government of Kenya

The trend in expenditure analysis indicates increases in development expenditures by 59% from Kshs. 40,125 million in FY 2009/10 to Kshs. 63,860 million in FY 2011/12. Compared with the budgeted funds (approved estimates), the absorption of allocated funds for development expenditure averaged 70% for the FY 2011/12. There is underutilization of allocated funds by 30%. The low absorption of development funds is due to the difficulties and technicalities involved in the use of donor funds as development vote carries a

bigger portion of donor funds and lack of liquidity due to exchequer issues. Underutilization realized is also explained by procurement challenges particularly for donor funded projects, inadequate counterpart funding which affects the expenditure on the donor component, delayed exchequer releases and disbursement of funds from development partners. It should be noted that the development budget against the total budget for FY 2011/12 is 74% for approved estimates and 67% for actual expenditure respectively.

On railways, the Government in FY 2013/14 introduced a Railway Development Levy of 1.5 percent on all imported goods to mobilize Ksh 15 billion to fund construction of a standard gauge railway line from Mombasa to Kisumu. Construction of new railway line will reduce the cost of transport and cost of doing business in general, improve cargo off take from the port of Mombasa, save the depletion of roads and reduce maintenance costs, save on time taken to transport goods from the port of Mombasa to the borders, and boost trade and investments in the country among others.

9.3.7 RWANDA

The allocation of the budget resources is done taking into account the EDPRS2 priorities. The thematic areas are allocated 50 percent of the total budget; foundational issues allocated 37 percent; while the support functions allocated remaining 13 percent.

Road infrastructure development is considered as one of the key projects of the economic transformation thematic area, which is considered a core component of the EDPRS2 and allocated RWF 459 billion equivalent to 28 percent of the total budget FY 2013/14. Road projects that have been allocated resources are:

i. Kivu-belt (66 km) lot 4 &5 Rehabilitation- Mwityazo -Karongi road: RWF 30.1 Billion.
ii. Kivu Belt (50km) Lot 7 Rubavu-Gisiza Road: RWF 19.3 Billion.
iii. Kigali-Gatuna Road (80km) Rehabilitation: RWF 13.9 Billion.

The following tables shows cost estimates of infrastructure projects identified by EAC for implementation in road, railway and ports.

Table 9-4 Regional Road Projects Supporting Ports Development

No	Project name and description	Cost Estimate (USD mill.)	Current Status
1	Road projects to decongest access to Dar es Salaam Port (Dar es Salaam - Chalinze - Morogoro road capacity upgrading, Tangi Bovu - Banana		

No	Project name and description	Cost Estimate (USD mill.)	Current Status
	Bypass, Junction improvements/interchanges in Dar es Salaam city, Southern Bypass (Dar es Salaam Port - Kisarawe - Mlandizi - Bagamoyo (Mbegani Port) and Bunju - Victoria - Pugu road)		
2	Rehabilitation and construction of Garsen - Lamu – Malindi road	600	Detailed design expected to be completed by September 2013.
3	Rehabilitation and construction of Malindi - Mombasa – Lunga Lunga/Horo Horo & Tanga - Pangani - Bagamoyo road		
4	Development of Lamu-Isiolo-Nadapal/Nakodok-Juba Road		Government of Kenya and Government of South Sudan are jointly implementing the Eldoret - Nadapal - Juba section with World Bank as lead financing partner.
5	Construction of Nyanguge – Musoma - Sirari/Isebania - Kisumu-Webuye-Kitale-Lodwar- Nadapal/Nakodok along Corridor 3 of the East African Road Network		
6	Rehabilitation of Ngoma – Bugesera - Nyanza road linking to Dar es Salam-Isaka Kigali Railway		
7	Rehabilitation of Ntungamo - Kagitumb Kayonza - Rusumo - Lusahunga road		
8	Rehabilitation of Ruhwa-Bujumbura-Rumonge-Mugina road		
9	Rehabilitation of Nyakasanza - Kobero - Muyinga - Gitega - Nyakararo - Jenda - Bujumbura road		
10	Upgrading from gravel to bitumen the Nyakanazi - Kasulu – Kidahwe - Mpanda road		
11	Construction of Cankuzo - Ruyigi - Bujumbura linking to the Nyakanazi – Kasulu – Kidahwe – Mpanda road		

No	Project name and description	Cost Estimate (USD mill.)	Current Status
12	Dualling of Jinja - Kampala and Kampala - Mpigi Highways as sections of the Northern corridor		
13	Construction of the Kampala Southern Bypass		

Table 9-5 Railways Subsector

No	Project name and description	Cost Estimate (USD mill.)	Current Status
1	Rehabilitation of the Central Line; Dar es Salam-Tabora-Mwanza/Kigoma, Kaliua - Mpanda railway line with a spur to Kasanga	1,425	Detailed technical studies ongoing financed by the African Development Bank (Initial study also financed by the United States Trade Development Agency (USTDA)
2	Construction of the Uvinza - Musongati railway line		The detailed designs are ongoing. It is part of the Dar es Salaam - Isaka - Kigali / Keza - Musongati Railways project.
3	Construction of the standard gauge Dar es Salaam–Isaka - Kigali/Keza-Gitega-Musongati railway line	5,100	Feasibility studies carried out indicate project economically viable. Detailed technical studies and PPP packaging to be completed by June 2013.
4	Completion of detailed designs and the construction of the Lamu - Isiolo-Moyale- Addis Ababa Standard Gauge Railway, Lamu-Isiolo-Nadapal/Nakodok-Juba standard gauge railway line, Nairobi-Isiolo-Moyale -Addis Ababa standard gauge railway line under the LAPSSET Corridor Project	4,400	Pre-feasibility studies are complete. Mobilization of resources for detailed designs is ongoing
5	Fast tracking of the joint rehabilitation of the Kenya - Uganda railway: Mombasa – Nairobi - Malaba – Kampala with a branch line to Kisumu & Tororo – Pakwach	1,600	Feasibility study and preliminary design already undertaken jointly by Kenya Railways Corporation (KRC) and the China Road and Bridge Corporation. Feasibility studies for the Tororo - Packwach line is complete.

No	Project name and description	Cost Estimate (USD mill.)	Current Status
6	Rehabilitation of the Voi-Taveta Branch to link Kenya and Tanzania railway networks	200	Mobilization of funds for feasibility studies and detailed designs is ongoing from the Indian Trust Fund and the African Development Bank.
7	Upgrading to standard gauge of the Mombasa - Nairobi - Malaba-Kampala-Kasese line and construction to standard gauge of the Kasese - Bihanga-Kigali-Bujumbura line and Kasese-Kisangani line	4,000	Feasibility studies for the Kampala - Kasese section were completed in March 2012. A consultant has been procured to carry out preliminary designs for the Malaba - Kampala section. For the Kenyan component, discussions are at an advanced stage with the Chinese Government for design and construction.
8	Upgrading to standard gauge of the Tororo-Pakwach line and construction to standard gauge of the Pakwach-Gulu-Atiak-Nimule-Juba line	2,500	Feasibility studies have been completed on the rehabilitation exercise, while those for the standard gauge are underway.
9	Upgrading and Construction of the Tanga (Mwambani) – Arusha–Musoma with Spurs to Minjingu and Lake Natron line, linking to New Kampala Port at Bukasa via Lake Victoria	2,100	Funding being sought from ADB and India Trust Fund.
10	Development of Mtwara - Mbamba Bay railway with spurs to Liganga, Mlimba and Mchuchuma	2,500	Feasibility studies are planned for 2013/2014

Table 9-6 Ports subsector

No	Project name and description	Cost Estimate (USD mill.)	Current Status
1	Development of the Lamu Port starting with the first three berths and associated facilities for the Port	400	The construction of the first three berths has commenced.
2	Completion of the ongoing expansio modernization of Mombasa port Container Terminal and re- developm Berths 12 - 14 into container terminal	800	The project is already underway. Phase 1 of the dredging involving the port channel has been completed and the development

No	Project name and description	Cost Estimate (USD mill.)	Current Status
	Dongo Kundu Free Port		of the second container terminal funded by JIBC has started, as well as the development of berths 12-14.
3	Modernization of the Dar es Salaam Port including construction of a 2nd modern container terminal (berths 13 and 14), deepening and strengthening of berth 1 - 7 (including Ro-Ro berth), development of Kisarawe Cargo Freight Station	1,200	Feasibility studies for construction of the 2nd container terminal have been completed. Feasibility studies on the other components are ongoing.
4	Development of Maruhubi Hub Port in Zanzibar	400	Feasibility studies and preliminary designs are complete. A detailed engineering study for the Port is required.
5	Development of Mwambani port in Tanga, Musoma Port and New Kampala Port at Bukasa	825	Feasibility study and detailed engineering design have commenced and are expected to be finalized before end of 2012.
6	Implementation of the construction/rehabilitation and expansion programmes for inland ports, including Bujumbura, Rumonge, Rusizi, Karongi, Rubavu, Kigoma, Kisumu, Homa Bay, Port Bell, Mwanza, Itungi, Kasanga, and Jinja	1,100	A number of feasibility studies have been carried in some of the ports.
7	Roll on - Roll off facilities between Dar es Salaam, Zanzibar, Pemba, Tanga and Mombasa	500	Feasibility studies are ongoing for some of the ports.
8	Development of the navigability of the Akagera River	2,000	Pre-feasibility studies have been undertaken.

Table 9-7 One Stop Border (OSBP) Facilities

No	Project name and description	Cost Estimate (USD mill.)	Current Status
1	Construction of Rusumo International Bridge and One Stop Border Post facilities at Rusumo	JP¥ 2,975,000,000 JP¥ 198,600,000	The 33 months works from 2nd February 2012 to 15th November 2014. Contracts valued JP¥ 2,975,000,000 and consultancy contracts valued JP¥

No	Project name and description	Cost Estimate (USD mill.)	Current Status
			198,600,000 funded by JICA the Rwanda Transport Development Agency (RTDA) and Tanzania National Roads Agency (TANROADS) as implementing agencies.

10. STRATEGIC APPROACH FOR THE IDENTIFICATION OF THE DEVELOPMENT OPTIONS

As mentioned in the Terms of reference: "The objective of this task is to identify and present potential implementation, operating and maintenance concepts to introduce and sustain efficient and effective rail-centric intermodal services along the Central and Northern corridors."

The identification of the development options is based on the diagnostic and performance analyses of the corridors previously presented in the report. These analyses have considered in particular the following elements:

- State of the infrastructures, services, organization, institutional framework,…
- Level of traffic, bottlenecks, …
- Missing links.

According to the corridor approach of the study, only projects situated on the Central and Northern corridors were selected.

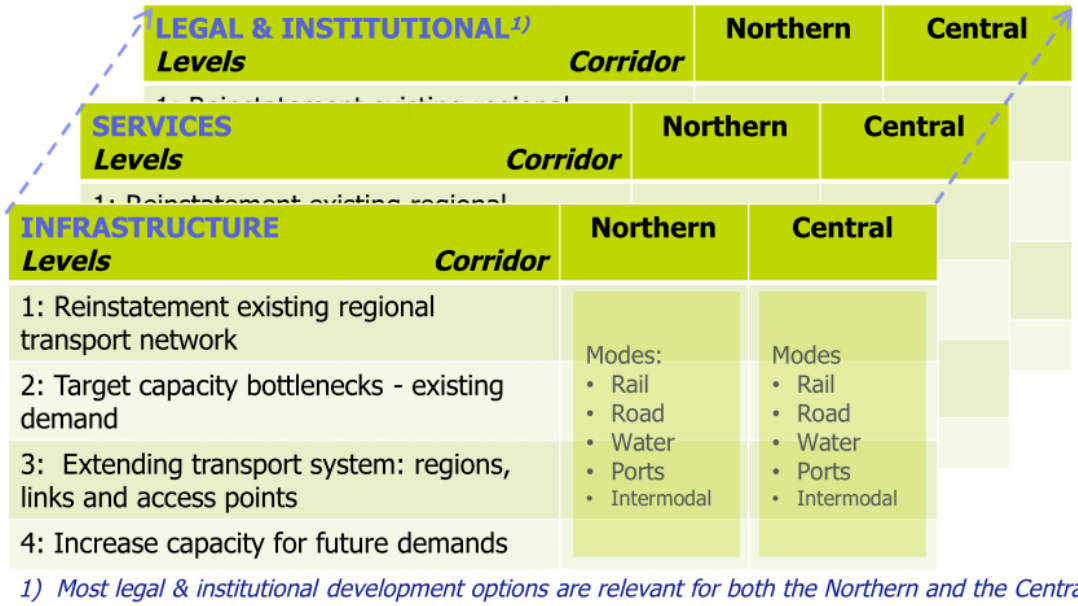
The following components have been considered for the identification of the development options:

- Infrastructure
- Services
- Legal & institutional

To achieve and sustain an efficient transport system, the different development components cannot be considered separately. Development of new infrastructure can only bring the expected results when combined with efficient services and a consistent legal & institutional framework. Transport services can only be sustainable when the accessibility of the nodes is guaranteed. Therefore, the individual development options are combined in packages that need to be considered as a whole to fully reach their objective. Aiming for an intermodal transport system, these packages include actions relating to different modes: Rail, Road, Water, Ports and Intermodal.

The following levels of packages are considered:

- Level 1: Reinstatement of the existing regional network where it has fallen into disrepair: (provision of minimum maintenance)
- Level 2: Target capacity bottlenecks & black spots that occur with the existing transport demand
- Level 3: Facilitate access to the corridor by extending existing transport system to more distant regions, links between the corridors and improving multimodal access points
- Level 4: Increase capacity of multimodal transport system for future demands



1) Most legal & institutional development options are relevant for both the Northern and the Central corridors

These packages implicitly consider a progressive and time-related approach, as several of the options, though not all of them, have to be implemented successively, starting from Level 1.

According to the defined strategy, the focus is put on railway and intermodal facilities, with road transport considered as an alternative for lower volumes and as a substitute for the missing railway links.

The long list of development options is presented hereafter in packages by corridor and by level.

This proposed list of development options will be presented to the Steering committee (Technical workshop scheduled in November) and successively a comparison of the alternative options will be performed according to agreed criteria and weights so as to select the most suitable options.

11. DEVELOPMENT OPTIONS FOR THE NORTHERN CORRIDOR

11.1 PORT OF MOMBASA

11.1.1 Level 2: Target capacity bottlenecks & black spots

During the review of the port operations, the following bottlenecks were identified:

- The port has not been able to provide the capacity needed for the rising demand
- Long transit times for goods that are being handled in the port
- Accessibility problems.

Below, a number of development options are proposed to target these bottlenecks.

11.1.1.1 Capacity

The port of Mombasa is a well functioning port. In Mombasa, construction works are on-going for the expansion of the container terminal (Kipevu-West), on Berths 21-23. These construction works imply the removal of the Kipevu Oil Terminal, which needs to be relocated to another location in the port.

Project	Relocation Kipevu oil Terminal
Description	Due to expansion of container terminal Berths 20-23, the Kipevu Terminal needs to be relocated.
Agency	KPA
Expected impact	Improved accessibility for large vessels (150,000 dwt) & improved safety (tank further away from city)
Preconditions/ relation with other projects	Improves safety, since it would be in the middle of a very busy area, when berths 20-23 have been completed.
Readiness	Niras Port Consultant of Denmark have carried out a detailed feasibility study, location study, viability, cost and funding options[356]
Cost	102.750 USDm (26% public funding) OR 55.5 USDm

Project	Conversion of Berths 11–14 with a total yard area of 120,000 m² to a modern container terminal and berth strengthening to accommodate heavier cranes
Description	This project strengthens the berths and allows these to accept container cranes. At the same time the yard capacity will improve slightly.
Agency	KPA
Expected impact	Increase total berth capacity. Additionally yard capacity can be increased as well, yet yard capacity is primarily sensitive to dwell times.

[356] Trans East African Networks Match-Making Conference, Kampala, 2013

Preconditions/ relation with other projects	This project was initially envisaged to carry out through a PPP concession to a private terminal operator. For the medium term it is expected that KPA will continue to operate these terminals. The construction works will temporarily take out capacity from the port, so the most suitable moment would be just after commercial opening of Berths 20-23.
Readiness	Project remains confirmed, yet no timeline communicated by the KPA at this moment.
Cost	Consultants initial estimate: $50m

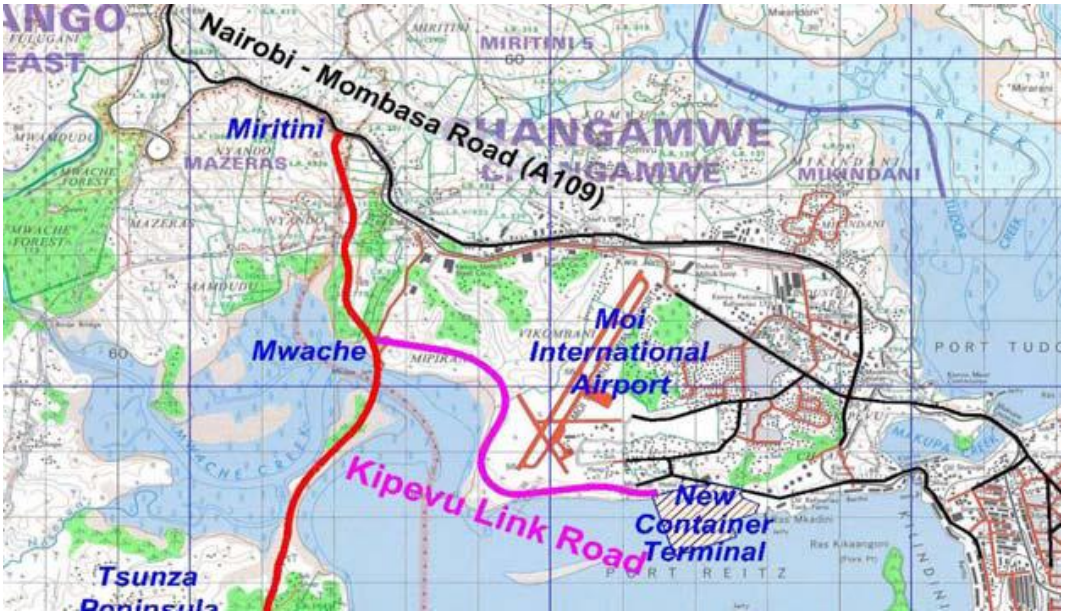
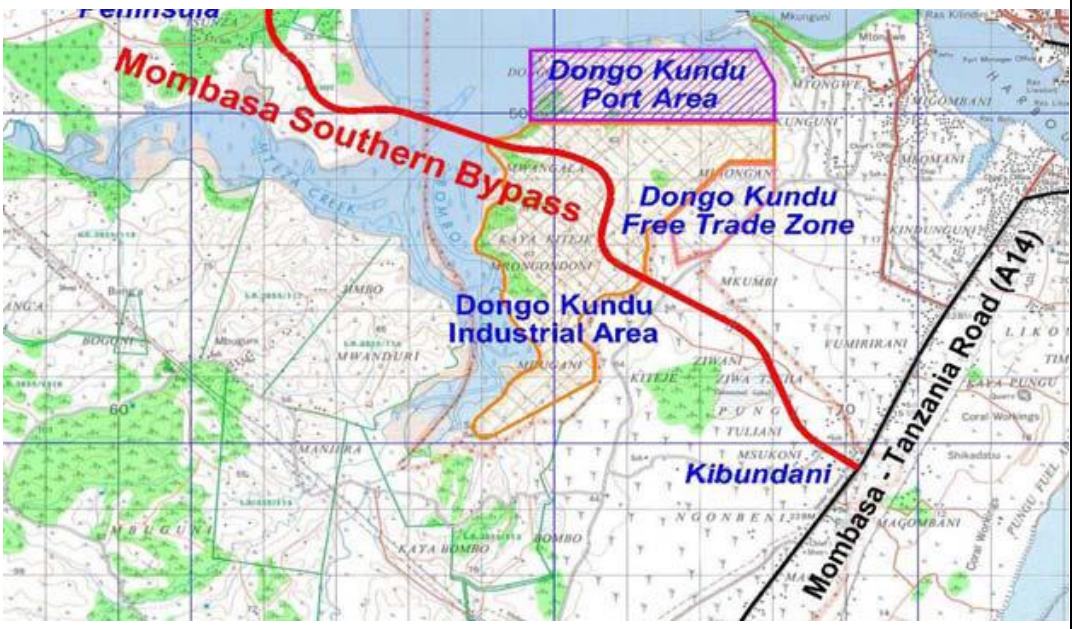
11.1.1.2 Transit time

Project	Implementation of the Port Community Based System
Description	A Port Community System is a neutral and reliable hub for all logistics information in . Via a port-transcending Port Community System, companies can benefit from a multitude of intelligent services for simple and efficient information exchange, both between companies and between the public and private sector. This enables all the participants to optimize their logistics processes, thereby improving their own competitive position and that of the port. A Port Community System belongs to and serves the port community and is a non-profit organization. Example of services: • Cargo declaration export EDI • Cargo declaration export Internet • Cargo declaration import EDI • Cargo declaration import Internet • Cargo declaration status report • Cargo information • Customs scan process • Declaration Food and Consumer products EDI • Declaration Food and Consumer products Internet • Discharge confirmation report • Discharge information • Discharge list • Discrepancy list • Loading list • Vessel notification EDI • Vessel notification Internet • Veterinary inspection process • Notification bonded warehouse • Notification dangerous goods EDI • Notification dangerous goods Internet • Notification import documentation • Notification local clearance • Notification of arrival cargo • Notification of arrival containers • Notification waste disposal • Pre-arrival cargo declaration import (24h) • Pre-arrival cargo declaration import (4h) • Rail planning • Road planning EDI • Road planning Internet • Track and trace containers • Transit declaration • Transport order • User management
Agency	KPA is the main beneficiary, but all stakeholders should benefit

	
Expected impact	A Port Community Systems aim is to make the logistics chains of the port as attractive as possible by offering a one-stop-shop for logistic information exchange. To this end, the organization combines knowledge of the ports with ICT know-how in an atmosphere of personal co-operation.
Preconditions / relation with other projects	It is an integrated system affecting all port operations
Readiness	First steps are being made. Remainder requires time and willingness to implement
Cost	Stepwise approach: $1m - $50m

Project	Re-Implement Terminal Operating System (TOS), e.g. the existing Kilindini Waterfront Automated System (KWATOS) both at Mombasa as well as in Embakasi ICD.
Description	Ensure KPA is able to do its own vessel, yard and resource planning, thereby taking away any distrust with the shipping lines. A prerequisite for efficient and correct planning is the structured use of a functional Terminal Operating System (e.g. the existing KWATOS/CATOS system). Actions: - KPA IT should free up extensive resources for this project and put it #1 on the IT project priority list - Re-install the KWATOS system or another TOS - Re-train all the users - Redefine the operational processes - Start an extensive training program - Cooperate with the shipping lines (regain trust)
Agency	KPA
Expected impact	Reducing the number of clearing days from 7 days to just 2 days; reduce overhead costs, bureaucracy and corruption, also in ICDs
Preconditions/ relation with other projects	It covers the comprehensive container planning.
Readiness	yes
Cost	10 million USD

11.1.1.3 Accessibility (road + rail)

Project	Port road Mombasa – Kipevu Link Road
Description	The project consists of the construction of a port link road to connect the Southern bypass of Mombasa to the new Container Terminal Kipevu West (5.7km).  
Agency	Kenya National Highway Authority
Expected impact	Facilitation of road access to the new container terminal by easing the heavy traffic in Mombasa
Preconditions / relation with other projects	Related to the development of the new container terminal Kipevu West (within the Mombasa port Development Project) and to the Mombasa Southern Bypass.
Readiness	Concept in progress
Cost	7 USDm[357]

[357] TICP, Aurecon, 2012

11.1.2 Level 4: Increase capacity

Project	Development of Dongo Kundu area
Description	KPA has assigned Dongo Kungo area (on the other side of Port Reitz) as the primary location for future port capacity expansions.
Agency	KPA
Expected impact	Medium to long term capacity development Possible 'energy port' with gas fired power plant
Preconditions/ relation with other projects	Masterplan of the 3000 acres owned by KPA – possibly including (gas fired) power plant
Readiness	Prefeasibility stage 'long term' solutions and are therefore not expected before 2020/30
Cost	unknown

Project	Expansion of dry bulk facilities at Mbaraki Wharf for all dirty bulk cargo, such as clinker, coal, iron ore, fertilizers, etc.
Description	The project would include new access bridges, dust suppression, berth deepening and berth extension[358]
Agency	KPA
Expected impact	The impact of the new access bridges is the efficiency of a single loading and reduced dust caused during the second loading at the back of the port. Avoidance of double handling will also reduce the cost of the products. Cost savings are estimated at US$0.11 per tonne. Wharf deepening will allow larger ships which are more efficient and thereby reduce the cost of imports.
Preconditions/ relation with other projects	Project is at the start of the access channel.
Readiness	Unknown
Cost	1.333 USDm

11.2 MOMBASA – KAMPALA

11.2.1 Level 1: Reinstatement of the existing regional network

11.2.1.1 Railways

Our understanding after interviews with KRC, URC and RVR is that RVR, the concessionaire of the Mombasa-Kampala line, will pursue its investment programme as per the concession agreement. This multiannual programme should involve the railway infrastructure, equipment, rolling stock and services. It should be defined by RVR and approved and monitored by the regulators, KRC and URC.

It must be noted that this investment programme is to be financed by RVR and should therefore in principle not be part of the development options proposed to be financed by public funds originating from governments or international financial institutions. However, it is recalled that RVR has benefited in the past from loans from the AfDB, the KfW, the IFC, etc.

[358] TICP, Aurecon, 2012

Project	Rehabilitation of the Northern railway line
Description	Railway infrastructure, equipment, rolling stock and services (to be defined by RVR)
Agency	RVR
Expected impact	Improve transport time, reliability, …
Preconditions/ relation with other projects	
Readiness	
Cost	Unknown

11.2.2 Level 2: Target capacity bottlenecks & black spots

Project	Develop a pilot project of a 3-daily container block-trains between Mombasa and Nairobi (ICD)
Description	Actions - Set up a project team, consisting of the organisations involved (RVR, KPA, KRA). - RVR to identify suitable existing rolling stock for the service (locomotives & wagons): 3 trains with similar characteristics (length, state of the assets) and some backup rolling stock in case of emergency). Limit train length so time-consuming marshalling and chances of service breakdown is minimized - RVR to execute emergency repairs to the rail line to allow the block-trains to run on the specified route - RVR to maintain the rolling stock to ensure the pilot project works - KRA to cater for multi-modal procedures: allow transit containers to be moved to ICD Nairobi under customs regime and further transit transportation by truck from Nairobi ICD. - KPA Operations to ensure smooth loading/unloading of trains in the port - KPA to provide priority to trains when marshalling in the port area - KPA to liaise with shipping lines to participate in rail pilot (alternative is to force transit containers over the rail) - KPA and RVR to assess the financial feasibility of the pilot project. Some temporary cross-subsidisation may be needed in case business case RVR is negative during start-up of the service
Agency	RVR with KPA as client
Expected impact	To develop an alternative for trucking, removing trucks from the roads and limiting gate and road congestion. Proving the concept of rail transport works. Aimed at 3 daily trains between the port and the ICD near Nairobi.
Preconditions/ relation with other projects	RVR may face investment requirement in rehabilitation of rolling stock and upgrades to the rail lines. This is however already part of their mandate.

Readiness	Not clear, in principle the funding should be derived from private rail operator RVR
Cost	unknown

Roads of the Northern Corridor are in general good state, but only face congestion on some sections. Nevertheless, as an alternative by rail is offered on this section, the objective of this strategy aims at a minimum level of investment.

Until recently, border posts and weighbridges were a significant problem on the corridor, but the situation is expected to improve with the OSBP at Malaba which is under construction, and the recent automatisation of Kenyan weighbridges. Also for railways, an OSBP has been constructed in Malaba.

11.2.3 Level 3: Facilitate access to the corridor

Many projects are proposed to connect more distant regions to the railway line between Kampala & Mombasa: the west and north of Uganda, South Sudan, DRC, and Rwanda. These are all regions that are currently lacking a connection by rail, so access is restricted to road transport. On the short term, an ICD is being constructed near Kampala where goods can be transferred between road and railway. Without providing direct railway access to these regions, the usage of the existing rail transport is stimulated by offering a multimodal solution to these regions. A large part of the route still requires road transport. However, to provide railway access to these regions, upgrading of the existing railway line and extending it by a new line is proposed.

Project	Upgrade of the Tororo-Gulu-Nimule line
Description	Upgrade of the Tororo-Gulu line to standard gauge (450 km): - Upgrading of the existing railway, from the current 25 kg/m rail to 40 kg/m track - 20-t axle loads - with possible realignment in sections in order to increase operating speeds - strengthening of bridges and culverts - lengthening of passing loops New standard gauge railway line: Gulu-Nimule (92 km): - 40 kg/m track - 20-t axle loads
Agency	URC
Expected impact	Improve transport capacity on the existing railway line between Tororo and Packwach, and provide railway access to South-Sudan.
Preconditions/ relation with other projects	This has as a precondition that they need to be connected to a railway network between Mombasa and Tororo that is functioning in an efficient and effective way. This implies the rehabilitation of the rolling stock and the segments of the existing railway that have fallen into disrepair, as proposed in level 1.
Readiness	Upgrade of the Tororo-Gulu line to standard gauge: feasibility commenced New standard gauge railway line: Gulu-Nimule: concept in progress
Cost	Upgrade of the Tororo-Gulu line to standard gauge: 1336 USDm New standard gauge railway line: Gulu-Nimule: 252 USDm[359]

[359] TICP, Aurecon, 2012

11.2.4 Level 4: Increase capacity

11.2.4.1 Capacity on the railway network

We were informed during our interviews with the stakeholders in Kenya, Uganda and Rwanda in June 2013 of the new Mombasa-Kampala-Kigali standard gauge railway project.

This Government priority project is considered in the present study for the long term development of the railways in the Northern Corridor.

The information available on this project is the following, based in particular on a synthesis of the joint communiqué issued at the 2nd Infrastructure Summit held in Mombasa, Kenya on 28th August, 2013 is presented hereafter.

The President of the Republic of Kenya, the President of the Republic of Uganda, the President of the Republic of Rwanda as well as a representative of the President of the Republic of South Sudan and a representative of the President of the Republic of Burundi, attended the 2nd Infrastructure Summit on 28th August, 2013, in Mombasa, Kenya.

"The Summit was convened to review progress of implementation of the decisions reached during the 1st Infrastructure Summit that was held in Entebbe on 24th – 25 June, 2013, to provide direction on the deepening of regional integration and to integrate the Republic of Burundi and the Republic of South Sudan into the Summit."

"The Summit noted the progress reports on the implementation of the decisions of the 1st Infrastructure Summit held in Entebbe on 24th-25th June, 2013 and directed as follows:

Railway development

- The construction of the Mombasa-Nairobi segment commences by November, 2013 and the completion of the entire Mombasa-Kampala-Kigali project by March 2018.
- The Ministers responsible to put into place a monitoring and evaluation mechanism to ensure the project remains on course, within budgetary provisions and its timely completion,
- The Malaba-Kampala-Kigali railway line with a spur to Muko to be completed by March 2018
- The Tororo-Gulu-Nimule line be upgraded to SGR line by March 2018,
- To extend the railway line from Kigali to Bujumbura by March 2018.
- The Kenya Railway Training Institute and the Tororo Road/Railway Polytechnic be developed into regional training centres for railway construction, maintenance and operations."

As already mentioned, these Government priority projects are considered in the present study for the long term development of the railways in the Northern Corridor.

Project	Mombasa-Nairobi-Kampala: new railway line
Description	New standard gauge railway line
Agency	Governments
Expected impact	Increase transport capacity on the Corridor
Preconditions/ relation with other projects	
Readiness	Feasibility commenced
Cost	Mombasa – Nairobi – Malaba: 4173 USDm Malaba – Kampala: 855 USDm[360]

[360] TICP, Aurecon, 2012

11.3 KAMPALA – KIGALI – BUJUMBURA

At the moment, the stretch of the Northern Corridor between Kampala, Kigali and Bujumbura is limited to road access. The following options for this segment are described in the following paragraphs.

11.3.1 Level 1: Reinstatement of the existing regional network

The first option is to reinstate the existing road connection between Kampala, Kigali and Bujumbura. Many segments are in good or fair condition, or under rehabilitation, mainly the segment between Gatuna and Kigali requires rehabilitation on some segments.

Project	Rehabilitation of road between Gatuna – Kigali - Akanyaru
Description	Upgrading roads to EAC standards: - Gatuna – Kigali: 79 km - Kigali – Akanyaru: 165 km.
Agency	RTDA
Expected impact	Improve road accessibility between Bujumbura, Kigali and Uganda, reduce transport cost and time.
Preconditions/ relation with other projects	Intermodal transport remains the preferred mode, by changing mode in Kampala. This requires performing railway operations on the segment between Mombasa and Kampala.
Readiness	Concept
Cost	Gatuna – Kigali: 85 USDm Kigali – Akanyaru: 101 USDm[361]

11.3.2 Level 2: Target capacity bottlenecks & black spots

Project	Kampala-Kigali new meter gauge railway line (Alternative to the project considered under Level 4)
Description	Extension of the existing railway line in meter gauge from Kampala to Kigali: Kampala – Kasese: 344 km Kasese – Kigali: 356 km
Agency	Kampala – Kasese: Uganda Ministry of Works and Transport Kasese – Kigali: RTDA
Expected impact	Provide railway access to Rwanda
Preconditions/ relation with other projects	A performant railway connection between Kampala and Mombasa is required in order to achieve the desired impact. Furthermore, this project needs to be considered in relation to the proposed railway access between Isaka and Kigali. Both connections are alternatives to provide a railway connection to Rwanda and need to be analysed further.
Readiness	Concept
Cost	Unknown

11.3.3 Level 4: Increase capacity

[361] Strategic Road Transport Master Plan for Rwanda, Aurecon, 2012

Project	Kampala-Kigali new standard gauge railway line
Description	New standard gauge railway line: Kampala – Kasese: 344 km Kasese – Kigali: 356 km
Agency	Kampala – Kasese: Uganda Ministry of Works and Transport Kasese – Kigali: RTDA
Expected impact	Provide railway access to Rwanda
Preconditions/ relation with other projects	A performant railway connection between Kampala and Mombasa is required in order to achieve the desired impact. Furthermore, this project needs to be considered in relation to the proposed railway access between Isaka and Kigali. Both connections are alternatives to provide a railway connection to Rwanda and need to be analysed further.
Readiness	Kampala – Kasese: Feasibility commenced Kasese – Kigali: Prefeasibility complete
Cost	Kampala – Kasese: 1022 USDm Kasese – Kigali: 1782 USDm[362]

11.4 LAKE VICTORIA

11.4.1 Level 1: Reinstatement of the existing regional network

Project	Lake accessibility in Kisumu, Port Bell and Mwanza South
Description	Water depth along quay is said to be limiting, therefore, dredging is proposed to restore design depths of around 6m on the approach to, in anchorage and along berths. Also a watercourse management system is proposed to minimise soil erosion and sedimentation at the ports. In Kisumu, the problem with water hyacinth is already proposed to be resolved by a waste management plant.
Agency	TPA, KPA, Uganda Ministry of Transport
Expected impact	Increased accessibility by the lake will allow larger ships to access the route
Preconditions/ relation with other projects	All ports require similar accessibility in order to accommodate an integrated system.
Readiness	Mwanza: concept
Cost	Mwanza: 1.6, funded by TPA with Belgian assistance

11.4.2 Level 3: Facilitate access to the corridor

11.4.2.1 Improve port operations

Project	Mwanza South: modernisation of ports and alignment of transport system on Lake Victoria
Description	Modernisation of Mwanza South is required:

[362] TICP, Aurecon, 2012

	- pavement - redevelop the general cargo berths to a single level - Construction ICD for 100,000TEUpa rail-water (with lift truck systems and the supply of additional mobile harbour cranes, tractor trailer units and associated equipment)
Agency	TPA
Expected impact	The two-tiered port structure in Mwanza hinders horizontal operations. By removing this barrier, efficiency of the port will increase, allowing greater port optimisations.
Preconditions/ relation with other projects	
Readiness	Planned according to site visit; concept in progress
Cost	5 USDm for redevelopment to a single level[363]

Project	Port Bell: modernisation of port and alignment of transport system on Lake Victoria
Description	If traffic increases and reaches its past peak levels, Port Bell would require: • additional operating space and the creation of a yard area to improve operations • two to three 5 ton forklifts.
Agency	TPA
Expected impact	Improve port operations
Preconditions/ relation with other projects	
Readiness	Concept in progress
Cost	

Project	Kisumu: modernisation of port and alignment of transport system on Lake Victoria
Description	To be defined (Similar approach as for Mwanza and Port Bell)
Agency	KPA
Expected impact	Improve port operations
Preconditions/ relation with other projects	
Readiness	Concept
Cost	

11.4.2.2 Container handling operations

The Northern Corridor can be connected to the Central Corridor by navigation services on Lake Victoria. However, the system of wagon ferries has fallen into despair. To unlock the lake's transport

[363] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

potential, either a new system or a revision is needed. There are three options considered[364], as discussed in the tables below:

- Rehabilitate the system of wagon ferries
- Develop inland container ports with cranes and barges
- Develop a chassis system with MAFI Trailers on ferries

Project	Rehabilitate the system of wagon ferries
Description	This project entails the following elements: - Ferry rehabilitation - Terminal rehabilitation: link-spans, guidewalls, …
Agency	TPA, KPA, Uganda Ministry of Transport
Expected impact	With proper loading, the container carrying capacity could be increased by 15-25%. However, the project does not make use of the full deadweight carrying capacity of the vessels, and does not allow efficient container handling.
Preconditions/ relation with other projects	Associated problems: vessels are old and require extensive maintenance and are expensive to operate. The project requires a functioning rail network and additional rolling stock
Readiness	Subject to shared conclusions from "Develop comprehensive transport system at Lake Victoria"
Cost	Ferry rehabilitation: 1 USDm Terminal rehabilitation: 0.5 USDm[365]

Project	Develop a tug and barge system with MAFI Trailers on ferries
Description	Increase efficiency of RoRo-operations - Conversion of the existing rail-wagon ferries to carry MAFI trailers - Acquisition of barges, MAFI trailers and importation of tugs - Mobilizing private sector, especially those involved in provision of lake services, to buy into and establishing RoRo services - Modification of rail link span system and guidewalls to facilitate the easy on and off movement of the trailers and containers in Kisumu, Mwanza and Port Bell - Holding yards in the ports of Kisumu, Mwanza South and Port Bell - Reach stackers or heavy forklifts to transfer the containers from the flat cars to chassis and vice versa. - Chassis pools
Agency	TPA, KPA, Uganda Ministry of Transport
Expected impact	This project will allow cargo unitization on the Lake Victoria and greater container penetration by rail to hinterland markets. In this way, the Northern and Central Corridor are linked. Also the development of ICD's is promoted in the respective great lake countries and the development of Container Freight Stations in origin and destination ports. The turn-around time of rolling stock will be reduced, as wagons no longer need to be transported by vessel, thereby reducing the need for additional rolling stock.

[364] As more elaborately described in the Appendix F of the Corridor Diagnostic Study of Nathan Associates, 2011

[365] Lake Victoria Ports & Transport, World Bank Transport mission to Uganda, Identification of requirements for improvement of Uganda's alternative Route to the Sea via the Central Corridor, 2010

Preconditions/ relation with other projects	Ports are highly dependent on the railroad for much of their business, so accessibility by rail to all ports is required: - Central railway line Dar es Salaam – Mwanza - Northern railway line Mombasa – Kampala and Kisumu
Readiness	Concept: • Subject to shared conclusions from "Develop comprehensive transport system at Lake Victoria" • Mwanza: Envisaged by TPA according to site visit • Kisumu: private operators are being sought for modernisation of port • Port Bell: Uganda Ministry of Transport plans expansion of Port Bell
Cost	Integrated tug/barge units (1 tug, 3 barges): 9.5 USDm Container Terminal development: 4 USDm per port Terminal rehabilitation: 0.5 USDm per port[366] Conversion of 4 existing rail-wagon ferries: 7 USDm[367]

Project	Develop inland container ports with cranes and barges
Description	Allow Load On Load Off-operations by: - Convert rail-wagon ferry services into load-on load-off container carriers - Container handling yards, allowing Load-on Load Off operations, in the ports of Mwanza South, Port Bell and Kisumu, including the supply of a mobile harbour crane, tractor trailer units and associated equipment[368].
Agency	TPA, KPA, Uganda Ministry of Transport
Expected impact	This project will allow cargo unitization on the Lake Victoria and greater container penetration by rail to hinterland markets. In this way, the Northern and Central Corridor are linked. Also the development of ICD's is promoted in the respective great lake countries and the development of Container Freight Stations in origin and destination ports. The turn-around time of rolling stock will be reduced, as wagons no longer need to be transported by vessel, thereby reducing the need for additional rolling stock.
Preconditions/ relation with other projects	Ports are highly dependent on the railroad for much of their business, so accessibility by rail to all ports is required: - Central railway line Dar es Salaam – Mwanza - Northern railway line Mombasa – Kampala and Kisumu
Readiness	Concept: • Subject to shared conclusions from "Develop comprehensive transport system at Lake Victoria" • Mwanza: Envisaged by port operators according to site visit • Kisumu: modernisation can be started after the transition of the port operations from KRC to KPA by the end of 2013[369]; private operators are being sought

[366] Lake Victoria Ports & Transport, World Bank Transport mission to Uganda, Identification of requirements for improvement of Uganda's alternative Route to the Sea via the Central Corridor, 2010

[367] EAC website, Investment opportunities Enhancement of ICD's, 2010

[368] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[369] Trans East African Networks Match-Making Conference, Kampala, 2013

	• Port Bell: Uganda Ministry of Transport plans expansion of Port Bell
Cost	Ferry rehabilitation: 1.5 USDm per vessel Container terminal development: 4 USDm per port[370]

11.4.3 Level 4: Increase capacity

If volumes that are transported by inland navigation increase significantly, the existing ports in Uganda, Port Bell and Jinja, will not be able to handle these volumes, and space for expansion is limited. Therefore, it is proposed to establish a new port near Kampala, at Bukasa.

Project	New Kampala Port in Bukasa[371]
Description	This project entails the construction and operation of a new inland port on Lake Victoria, near Kampala, in Bukasa. The port will increase the capacity with eight million tonnes per year, both containers and other types of goods. As the port needs to be completely new built, the following elements need to be constructed: - Dredging of the bay - Container terminal - Dry bulk/cargo terminal - Break bulk terminal - Oil jetty - Cargo handling equipment - Container handling equipment - Container yard/storage - Marshal area - Office facilities - Parking yard - Clearing facilities - Railway sidings.
Agency	Uganda Ministry of Works and Transport
Expected impact	This new port will improve the transport potential by inland navigation on Lake Victoria, between Kampala (Uganda) and Musoma and Mwanza (Tanzania). In this way, it serves as an alternative for the Northern Corridor through Kenya.
Preconditions/ relation with other projects	As a multimodal facility, the operations of the port depend on a good connectivity by land (rail and road) and inland navigation. This implies a good functioning railway connection to Mombasa, and road access to other areas in Uganda.
Readiness	Feasibility study underway
Cost	322 USDm

11.5 INSTITUTIONAL DEVELOPMENT OPTIONS

The Institutional development options are presented by country rather than by corridor.

Project	Legal and regulatory harmonisation project

[370] Lake Victoria Ports & Transport, World Bank Transport mission to Uganda, Identification of requirements for improvement of Uganda's alternative Route to the Sea via the Central Corridor, 2010

[371] Trans East African Networks Match-Making Conference, Kampala, 2013

Chapter	6.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK
Country	Kenya, Tanzania, Uganda
Sector	Railways
Description	• Adoption of a uniform approach to national bodies whereby the EAC champions the harmonisation of national policies and uniform best practices so that the services flow into each other's territory. The corridor committees on the other hand should create an enabling environment for private sector investment into the system through appropriate public private ventures for commercial returns • Adoption of comprehensive guidelines for common transport policies because the success of a corridor system and its individual components lies in the effectiveness of the entire chain of logistics • Integration of technical standards of national systems which include harmonised and state of the art facilities, railway infrastructure and systems that promote a competitive and efficient operation across borders • Introduce a common licensing system that is recognised across the region thereby allowing efficient participation in international trade and trans border operations • Ratification of important international conventions and instruments on rail transport such as the Bern Convention on International Rail Transport, 1980 as far as they are applicable to the local circumstances • Creation of a railway unit at the EAC to establish and monitor common regulations and standards of safe operation as well as provide technical assistance as appropriate • Strengthen the role of corridor committees in facilitating and effecting public private interventions into the sector owing to the huge capital outlays that the engagement requires at the initial point. This is even more critical due to the ancillary yet very indispensable facilities that come along with an effective railway service such as logistics parks and warehouses, cargo handling terminals, port rail linkages, inland container terminals, passenger terminals, hospitality and catering services, commercialised sections like food plazas, cybercafés, rest rooms etc. • Adoption of comprehensive guidelines for the railway sub-sector covering safety, infrastructure financing, training and certification of crew, passenger rights, compensations for freight breaches and provision of research and statistics.
Agency	EAC Secretariat and national governments
Cost	Unknown

Project	Professionalising the sector institutional setting
Chapter	6.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK
Country	Kenya, Tanzania, Uganda
Sector	Railways

Description	• Increased financial efficiency in the rail sector is critical because to date the service has not attained the levels of commercial competitiveness. It is normally operated almost on a wholly subsidised or heavily monopolised manner thereby not developing business viability to withstand competition. • Introduction of market forces in the sector by allowing an interplay of freight forwarders, shippers, port operators, logistics companies and international passenger services so as to diversify its domain
Agency	EAC Secretariat and national governments
Cost	Unknown

Project	Harmonisation of national policy with regional agreements
Chapter	2.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK 2.2.4 Road transport
Country	Burundi, Kenya, Rwanda, Tanzania, Uganda
Sector	Road
Description	• Strengthen the implementation and monitoring mechanisms in respect of transport agreements under COMESA, EAC, and other bilateral and multilateral agreements • Gap between international agreements and national policies should be closed • Step towards the creation of a common transport policy for the EAC states
Cost	-

Project	Update transport policy
Chapter	6.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK 6.2.4 Road transport
Country	Burundi, Tanzania
Sector	Road
Description	The proposed new policy (existing one has expired) should contain the following as a minimum: • The goals and programmes of the proposed policy should be in harmony with those of the other EAC states. The proposal should also take into account existing regional instruments such as the common market protocol and the Tripartite Agreements on Road Transport and Inland Waterways. • The new Burundi policy should include strategies and measures aimed at implementing the existing decision and agreements of the EAC states. • It should advocate for the creation of a road transport sector regulator as well as the involvement of the private sector in road infrastructure investments. The policy review should also rationalise and incorporate measures that have been implemented since the last policy was approved in areas such as private sector participation, sector regulation, infrastructure financing and the environment.

Project	Harmonisation of legislation
Chapter	6.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK 6.2.4 Road transport 6.4 Multimodal licenses and regulation 6.4.4 Road transport licensing
Country	Burundi, Kenya, Rwanda, Tanzania, Uganda
Sector	Road
Description	Burundi: • Adopt the newly proposed EAC act on overload control management that is being finalised. • Enact a law to regulate the participation of the private sector in road infrastructure development. • Enact a law to harmonise the regulation of the road transport sector in line with the current Tanzania's law. Kenya • Enact legislation for the creation of a land transport industry regulator as proposed in the current policy and as already done in Rwanda and Tanzania. This act will create an appropriate framework for the regulation of international and domestic road transport and should be supported by an appropriate institutional framework. • Support the newly proposed EAC bill on overload control management that is being finalised. • Support the proposed EAC bill on vehicle legislation and licensing Tanzania • Support the newly proposed EAC bill on overload control management that is being finalised, and once the bill is passed into law implement it accordingly. • Support the proposed EAC bill on vehicle legislation and licensing and revise the existing legislations to accommodate the passage of this bill. • Complete the review of the Road Traffic and Safety act Uganda • Support the newly proposed EAC bill on overload control management that is being finalised, and once the bill is passed into law implement it accordingly. • Support the proposed EAC bill on vehicle legislation and licensing and revise the existing legislations to accommodate the passage of this bill. • Enact a law to regulate the participation of the private sector in road infrastructure development. • Enact a law to harmonise the regulation of the road transport sector in line with the current Rwanda and Tanzania laws. All EAC countries: 9. Revise their legislation to (a) implement the REC-approved load limits and (b) adopt the administrative system of overloading control. Two options are available: c) revision of individual national laws (a lengthier process, but with

	more national buy-in) or d) the adoption of an EAC Act on Vehicle Overloading Control (may be a speedier route to adopting a regional benchmark, but must be accompanied by thorough national consultation to ensure buy-in by all states)

Project	Harmonisation of institutional framework
Chapter	6.2 REGIONAL AND NATIONAL LEGAL AND REGULATORY FRAMEWORK 6.2.4 Road transport
Country	Burundi, Kenya, Rwanda, Tanzania, Uganda
Sector	Road
Description	Burundi • An organisation to implement the road transport regulatory measures proposed by the above mentioned act. • An organisation to carry out road safety research, training and data collection made possible by some amendment of the act 01/4 of 2009. Kenya • An organisation to implement the road transport regulatory measures proposed by the above mentioned act. • An organisation to carry out road safety research, training and data collection, this type of organisation is proposed in the policy and is similar to that proposed by the Traffic Acts of Uganda and the draft traffic & safety act for Tanzania. Rwanda • An organisation to carry out road safety research, training and data collection as proposed by the Traffic Acts of Uganda and Tanzania Tanzania • Subject to outcome of process of review transport policy Uganda • An organisation to implement the road transport regulatory measures proposed by the above mentioned act. • An organisation to carry out road safety research, training and data collection as proposed in the policy.

Project	Comprehensive improvement of transit cargo procedures
Chapter	6.3 REVIEW IN DETAIL THE CURRENT PROCEDURAL STEPS FOR TRANSIT CARGO, COMPARED TO INTERNATIONAL BEST PRACTICE
Country	All EAC countries
Sector	Intermodal
Description	• Clearing Agents should utilise the pre-arrival lodgement facility to reduce the dwell time at the port.

	• There is need to re-engineer and harmonize processes at the major cargo clearance points to improve the turn-around time. • Develop and adopt a single customs declaration form which is recognized by all the Northern and Central Corridors Member States for goods cleared in transit. • There is need to introduce measures to ensure that trucks exit as soon as cargo clearance procedures are completed in order to decongest Customs areas. • Develop a system of securing goods once at the first port/station of entry of the goods along the Northern and Central Corridors. • Develop a single ICT platform for exchange of information among all the stakeholders involved in the handling and clearance of goods at the port of Mombasa and Dar es Salaam. • There is need to implement electronic single window systems to facilitate electronic data interchange to reduce clearance time. The Northern and Central Corridors Member States should implement national electronic Single Window Systems (e-SWS). The National e-SWS should be developed to facilitate exchange of information among all stakeholders across the national frontiers. • There is need to improve infrastructure, particularly, at the borders to support and facilitate clearance and movement of cargo. • There is need to synchronize administrative arrangements of key agencies involved in cargo clearance process to work 24 hours. • For each Member State, establish one government lead agency at the frontiers with specialized staff from the other government agencies seconded to work under the lead agency. This will avoid various departments from one country operating in silos at the border. The lead agency will harmonize and rationalize the border clearing activities. • There is need for cargo clearing and handling Agencies to provide for business continuity plans in times of system failures.

Project	Capacity building and coordination of railways
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	Kenya, Tanzania, Uganda
Sector	Railways
Description	• Put in place an inclusive coordination framework for harmonization and modernization of railway networks in the region to ensure a balanced development of railway systems in the region. • Promote return of heavy cargo to Railway transport in purpose to reduce transport cost and protect road network within the region. • Promote Private-Public Partnership (PPP) in the railway sector. • Strengthen human resource capacities within the railway sector. • Establish independent regulatory framework for railways. Only Tanzania has undertaken institutional reforms to set up an independent railway regulator (SUMATRA). • Promotion of autonomous railway management • Ensure that the long term government plan to develop a standard-gauge

	railway system does not uphold the necessary short term improvement plans to upgrade the railway system.

Project	Management of inland waters
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	Kenya, Tanzania, Uganda
Sector	Inland water
Description	• EAC States should take steps to domesticate the Inland Waterway Protocol as part of their domestic law as it provides a common regulatory framework, which can be usefully applied once inland waterway traffic picks up. • EAC states to adopt measures to implement the Inland Waterway Protocol.

Project	Port management reform
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	Kenya
Sector	Port
Description	• Transformation of the Kenya Ports Authority into a landlord port authority as envisioned under the INTP, 2009. • Review of the KPA Act to align it with current policy objectives as set out under INTP, 2009.

Project	Competition regulation
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	Kenya, Tanzania
Sector	Port
Description	• Implement legislation to provide a framework for independent port regulation and develop capacity to oversee port pricing, access issues and arbitrate disputes between service providers • Due to the prevalence of natural monopolies in ports, there is a parallel need to develop and implement a framework for economic regulation.

Project	Identification and preparation of PPP Projects
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	Kenya, Tanzania (Burundi, Uganda, Rwanda)
Sector	Port (inland ports)
Description	• Review of laws to allow for PPP projects in ports infrastructure development and service provision • The establishment of an economic regulator to assume responsibility to regulate port pricing, access and act as neutral arbiter in the event of disputes between services providers and customers. • Undertake legal and institutional reforms of Inland Waterways transport in

	order to attract more Public-Private-Partnerships (PPP); • Promote Public-Private-Partnership (PPP) in the rehabilitation, maintenance and modernization of transport in Inland Waterways. • Enhance capacity building within the Inland Waterways transport sector. • Enhance transport security and safety within the Inland Waterways.

Project	implement the EAC Tripartite Agreement on Road Transport on the Northern and Central Corridors
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	All EAC member states
Sector	Road
Description	10. The Adoption of an EAC Road and Transport and Traffic Act and its subsequent domestication of the same by the member States in their jurisdiction would facilitate the implementation of the EAC Tripartite Agreement. The proposed Act should include provision to deal with, inter alia, h) Revision of existing legislation (or the adoption new legislation) to domesticate the Agreement in the national laws of the member states; i) Design of uniform license application, adjudication and issuing procedures and forms; j) Design and adoption of license administration software systems and procure hardware; k) Training of personnel in the handling of applications, adjudication and issuing; l) Training of law enforcement officers in the application of on-the-road enforcement of the rules under the Agreement; m) Development of uniform transport supply and demand capacity to manage competition between carriers from different states; and n) Uniform monitoring and evaluation criteria.

Project	Adopt a common regulatory regime for road transport aimed at raising quality standards and improving safety
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	All EAC member states
Sector	Road
Description	11. The proposed regulatory regime should envisage: j) Transfer regulatory power away from KRA and TRA. k) Design of features of the regulatory system through a process of stakeholder consultation; l) Development of an appropriate institutional framework; m) Drafting of an EAC Road Transport and Traffic Act and implementing subsidiary legislation; n) Definition of a standard for access to the road transport profession; o) Development of procedures for evaluating applicants and issuing operator licenses; p) Design of support software and procure hardware to operate a

	multi-module database; q) Conduct of training of regulatory and law enforcement personnel; and r) Formulation of a monitoring and evaluation.

Project	Modify licensing conditions
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	All EAC countries
Sector	Road
Description	Phase out the license conditions whereby transit vehicles and vehicles carrying goods under customs control may not be used for domestic and other types of carriage must be phased out and find a better compromise between concerns to prevent revenue loss and optimal usage of transport equipment. In this regard, EAC should seek to facilitate discussion between revenue authorities, transporter associations and transport ministries in order to arrive at a suitable arrangement.

Project	Remove restriction on market access for foreign trucking firms
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	Kenya
Sector	Road
Description	Kenya should reconsider its restriction on market access for foreign trucking firms to abolish non-tariff trade barriers and promote competition of regional players.

Project	adopt qualitative regulation of road transport
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	All EAC countries
Sector	Road
Description	Qualitative regulation focuses on promoting intermodal competition through measures which allows each mode to exploit its inherent advantages and seeks to raise standards in service quality by focusing on carrier qualifications, financial standing and management capacity. Advantages of a Qualitative Approach to Licensing include, inter alia, i) Improved creditworthiness of road transporters and increased access to credit (reduced perception of risk on part of banks); j) More effective marketing of transport services to customers; k) Improved service (cost, timeliness of delivery); l) More effective competition; m) Lower transport costs; n) Improved road safety (better trained drivers / less mechanical failures); o) Improved compliance with traffic laws and vehicle loading limits; and

	p) Increased options to introduce self-regulation and reduce the regulatory burden. In addition to the benefits outlined above, introduction of qualitative regulation can also help to address a number of other issues which states have individually flagged as concerns in their transport policies. These include: e) The need to guard against anti-competitive practices, such as tariff collusion. f) The need for effective data collection and management systems to build profiles of carriers, vehicles and drivers. Such systems are essential for better enforcement, countering practices such as overloading and improving standards of vehicle maintenance, safe operation and safe driving (the need for better and more relevant road transport data in Tanzania has, for example, prompted SUMATRA to introduce an annual registration requirement for all freight operators in 2008). g) Managing capacity in the regional market. The road transport market is dominated by carriers based in Kenya and Tanzania. Authorities in other states have a legitimate concern to promote the growth of their domestic transport industries and to seek a balanced share for those industries in the regional market. h) Effectively administering regional transport agreements.

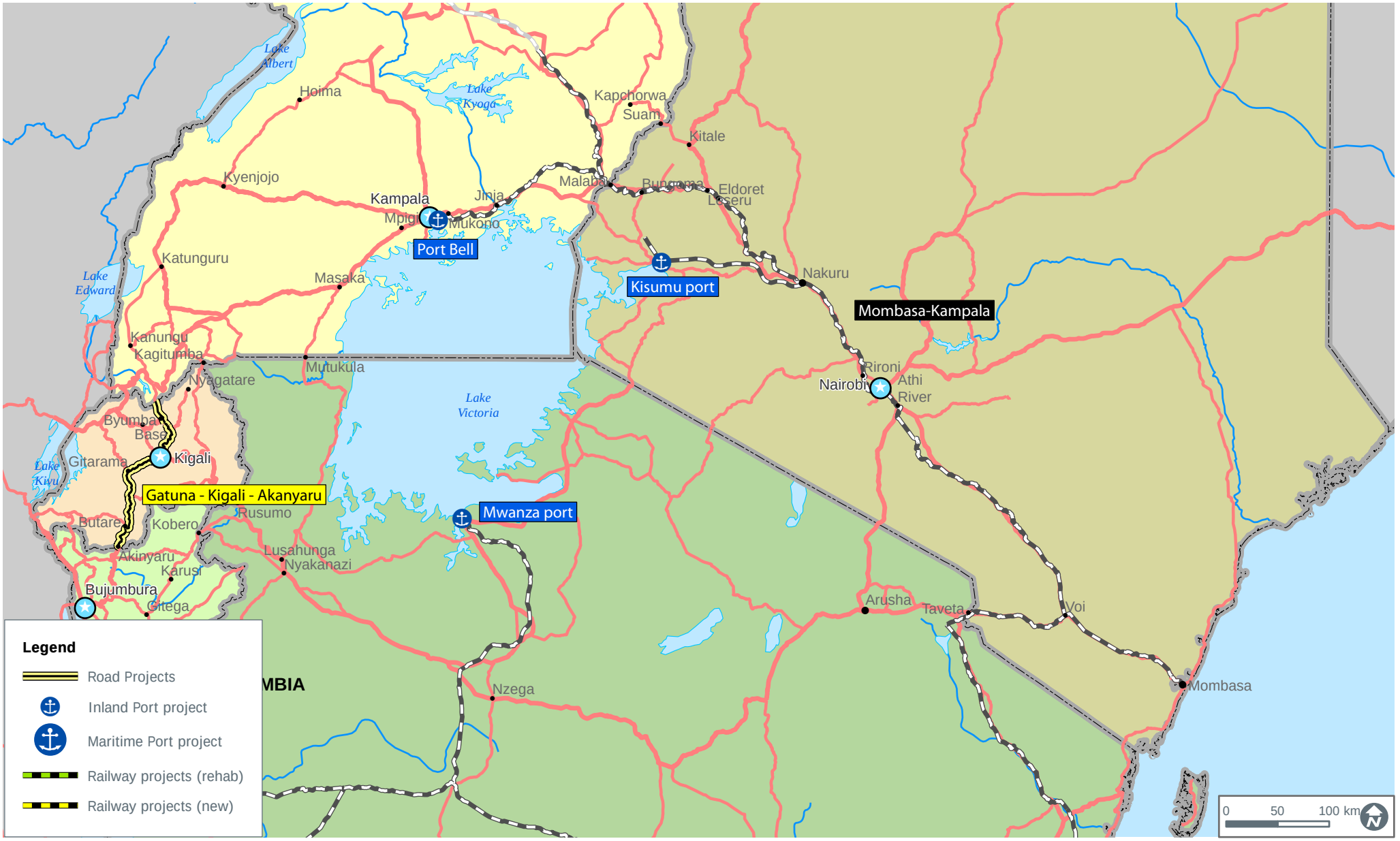
Project	Harmonise road infrastructure development
Chapter	6.4 MULTIMODAL LICENSES AND REGULATION
Country	All EAC countries
Sector	Road
Description	• Interconnect the road networks both at the national and the regional levels so as to facilitate easy access to all sectors of economic and social interest. Furthermore, establish interconnectivity of the Regional Corridors with other African Corridors. • Establish and apply common standards relating to design, construction and management of road infrastructure based on a Regional Transport Infrastructure Master Plan. • Promote Public-Private-Partnership (PPP) in the construction and/or the management of road networks in the region. • Establish Road Side Stations/parking facilities furthermore to promote safety at these facilities parking zones for trucks transporting dangerous products such as petroleum products and explosives should be clearly separated from those of trucks transporting other products. • Harmonize national plans relating to road and border infrastructure to ensure the quality of trans-border road infrastructure and develop joint border transport infrastructure facilities for the handling and clearance of vehicles and persons.

Project	Capacity development at relevant institutions
Chapter	7 Overview of sector institutions

Country	All EAC countries
Sector	All sectors
Description	• Consultant is awaiting responses from the institutions. The description of this task will follow with the update

Project	Ensure currency, comprehensiveness and complementarity of national transport policies
Chapter	8 Review of sector policy
Country	All EAC countries
Sector	All sectors
Description	• Develop a Common Transport Policy to give effect to Art 89of the EAC Treaty adopting phased approach and commencing with road transport • Pending the development of a common policy align national policies to ensure greater complementarity • Appoint transport policy advisor at EAC Secretariat • Invest more human and financial resources in national policy- making, implementation and monitoring capacity

11.6 MAP OF DEVELOPMENT OPTIONS LEVEL 1



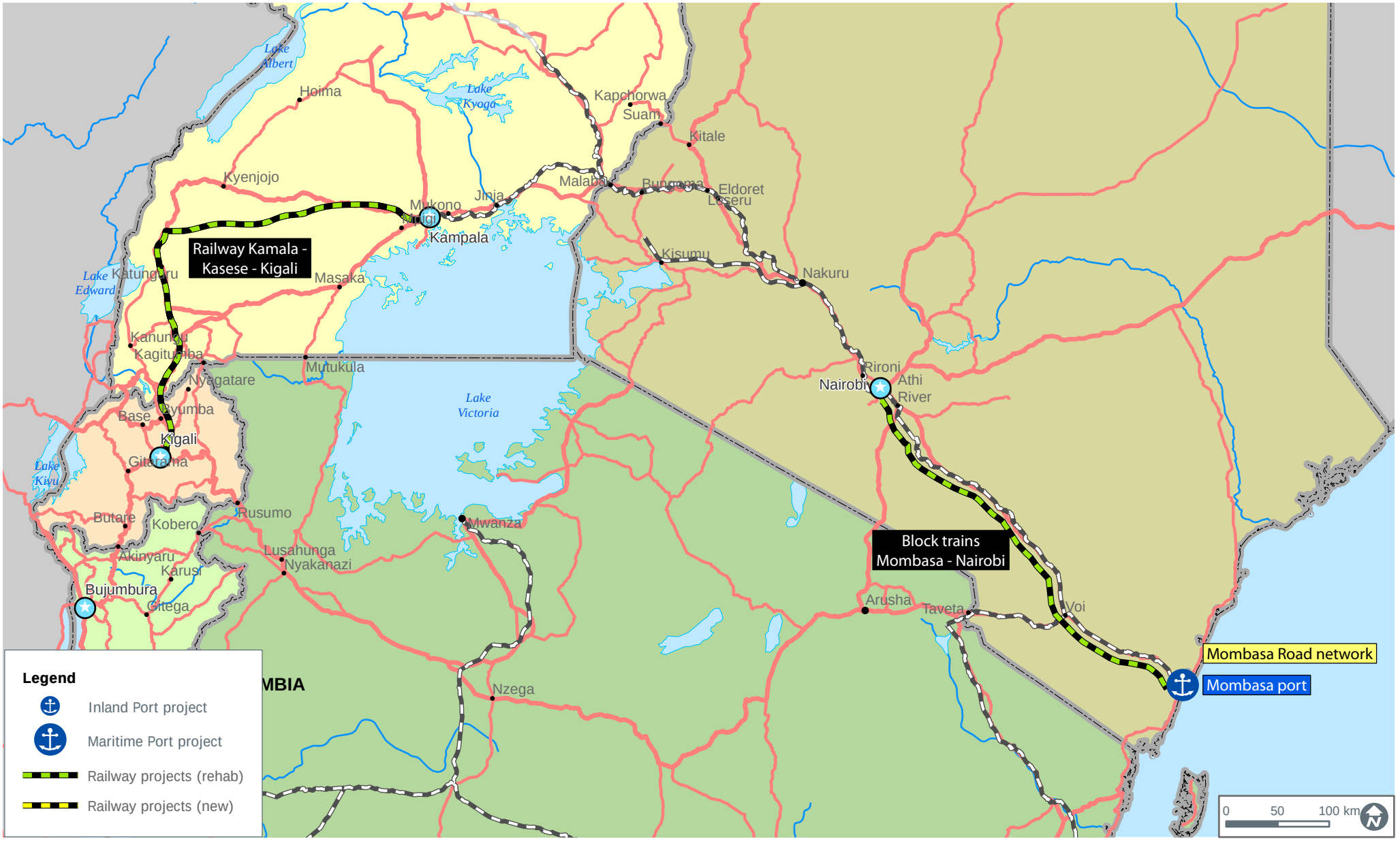
A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Northern corridor: Development options Level 1

mtbs

TRACTEBEL Engineering
GDF SUEZ

11.7 MAP OF DEVELOPMENT OPTIONS LEVEL 2



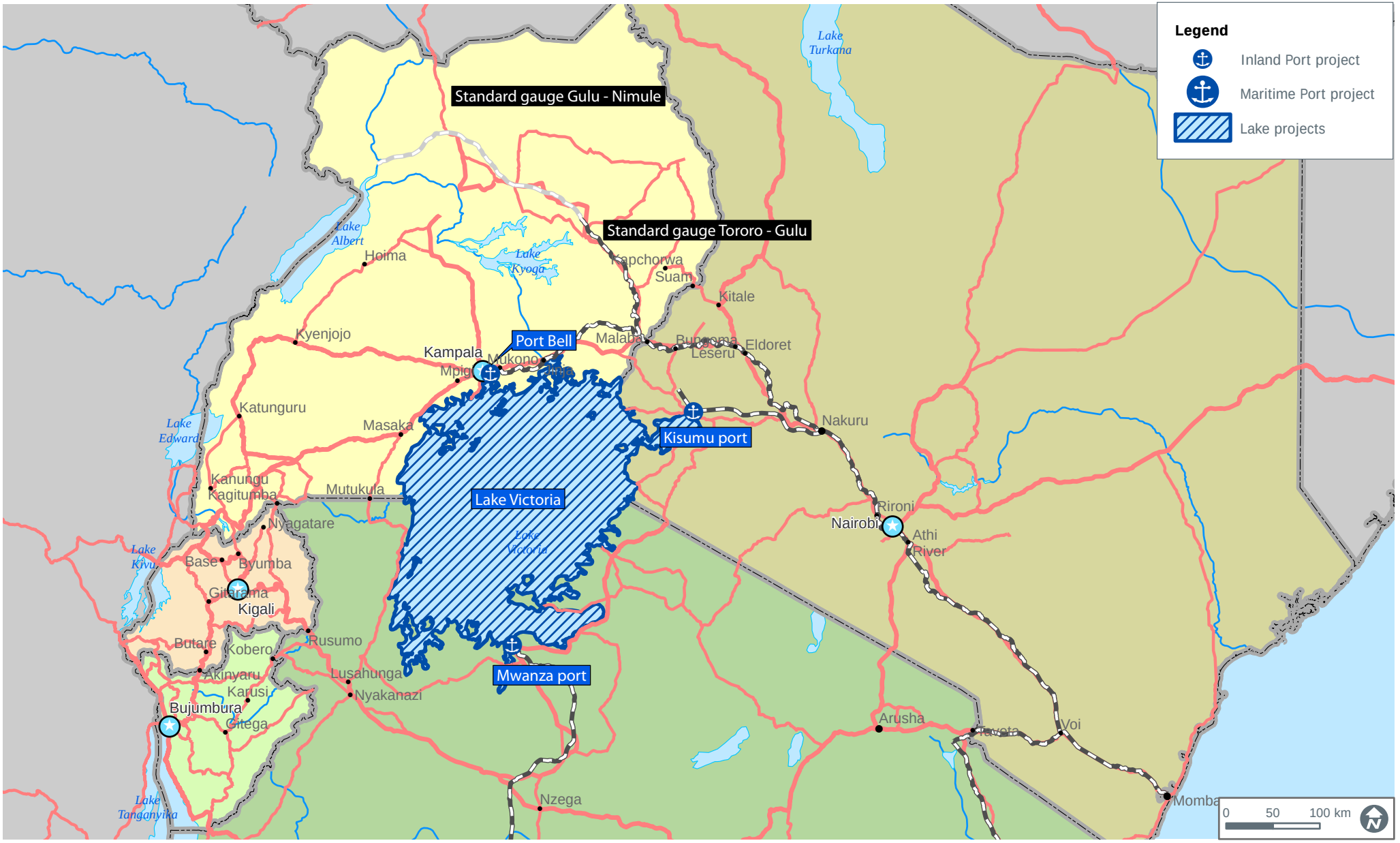
A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Northern corridor: Development options Level 2

mtbs

TRACTEBEL Engineering
GDF SUEZ

11.8 MAP OF DEVELOPMENT OPTIONS LEVEL 3



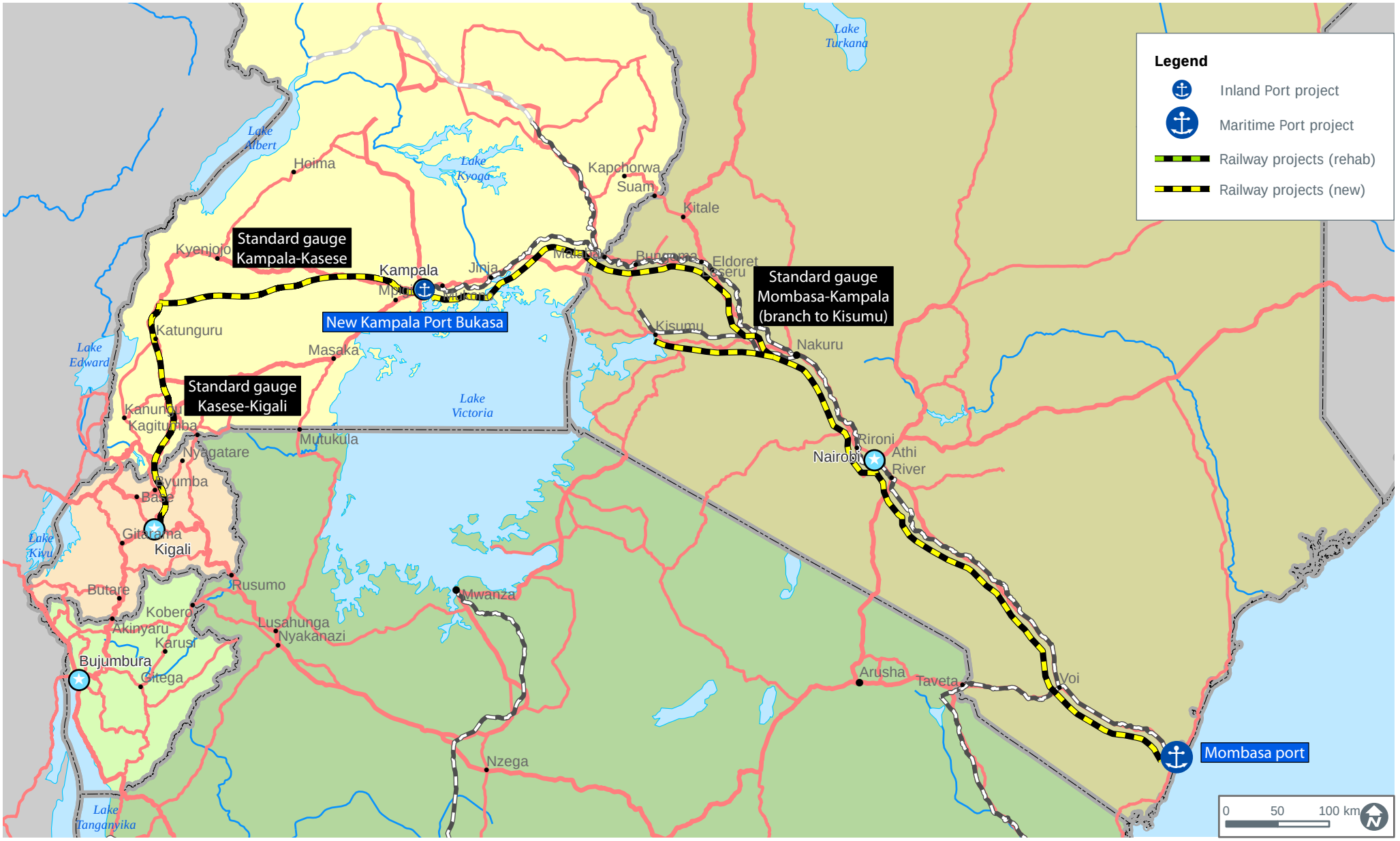
A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Northern corridor: Development options Level 3

mtbs

TRACTEBEL Engineering
GDF SUEZ

11.9 MAP OF DEVELOPMENT OPTIONS LEVEL 4



A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Northern corridor: Development options Level 4

mtbs

TRACTEBEL Engineering
GDF SUEZ

12. DEVELOPMENT OPTIONS FOR THE CENTRAL CORRIDOR

12.1 PORT OF DAR ES SALAAM

12.1.1 Level 2: Target capacity bottlenecks & black spots

3 important bottlenecks were identified during the review phase:

- Limited capacity
- Long transit times
- Accessibility of the port.

To target these bottlenecks, the following development options are proposed.

12.1.1.1 Capacity

- Combined container and cargo traffic exceed the port's designed capacity, resulting in long dwell times[372]. To increase the container handling capacity, it is planned to construct berths 13-14 as a container terminal[373]. This expansion implies also the construction of a floating dockyard as the existing slipways will be removed[374]. Also a freight station at Kisarawe could relieve pressure on the port, functioning as an extended gate for container and vehicle traffic destined to or originating from the upcountry and the transit (landlocked) markets[375].

12.1.1.2 Transit time

- Furthermore, the port has been marred by incidents of theft, with the authority incurring huge costs to compensate victims for lost goods, due to security lapse and existence of a network of thieves within the port[376]. Therefore an Integrated Security System is proposed, restricting access and movement within the port premises: people and cars will have to be certified to get into the port premises. There will be CCTV cameras installed all over the port, with an electrified fencing to protect the port and its properties. All the gates to the port will be automated.[377]
- Complex procedures, involving paperwork and several stakeholders also increase handling times. The automation of processing and handling information between traders and government institutions is planned by installation of an Electronic Single Window System[378]

12.1.1.3 Accessibility (road + rail)

A final factor that is hindering port operations in the Dar es Salaam, is the poor accessibility by road and rail[379] because of the rapid growth in freight volumes.

[372] Trade facilitation in the East African Community, US International Trade Commission, 2012

[373] Land-bridge concept study, RAHCO, 2012

[374] TICP, Aurecon, 2012

[375] TICP, Aurecon, 2012

[376] Website TPA

[377] Website TPA

[378] Website TPA

Project	Connectivity improvements in the greater Kurasni area
Description	This project entails the improvement of the access to the industrial zoning, traffic flow arrangements, railway capacity, gates and parking areas in the port environs.
Agency	TPA
Expected impact	By improving access by rail and road, a major bottleneck in port operations will be reduced, as currently, many accessibility problems exist in the port.
Preconditions/ relation with other projects	The project is part of a wider program by Trade Mark East Africa on Increasing Capacity at Dar es Salaam port. An improved accessibility by rail needs to be considered as well in relation to the improved operations on the railway network on the central railway line.
Readiness	Concept in progress
Cost	23 USDm[380]

Project	Junction improvements/interchanges in Dar es Salaam city
Description	This project entails the improvement of the junctions on the road between Dar es Salaam port and Morogoro Road, on a total length of 21 km to maximise the capacity of this road.
Agency	TANROADS
Expected impact	The improvement of these junctions will allow making full use of the existing road between Dar es Salaam port and Morogoro Road, which is heavily congested at the moment. As the majority of the goods shipped to and from the port are transported by road, it will reduce shipping delays significantly.
Preconditions/ relation with other projects	Railway remains the preferential mode for accessing the port, and it is expected that the modal share of rail transport will increase by the rehabilitation of the railway. Nevertheless, it is expected that a majority of goods will still be shipped from and to the port by road, and that road congestion will remain a bottleneck.
Readiness	Concept in progress
Cost	101 USDm[381]

Project	Port of Dar es Salaam: Improvements of the rail connection
Description	This project entails the improvement of the rail connection to and within the port. It concerns the rail link, the marshalling yards, the rail layout in the port, the rail connections of the new berths, the connections of the ICD's, etc.
Agency	RAHCO – TPA – Terminal / ICD owner and operator
Expected impact	The improvement of the rail connection will allow making a more efficient use of the rail from Dar es Salaam port, through an improvement of the capacity, reliability and speed allowed by rail infrastructure.
Preconditions/ relation with other projects	This project is part of the global rehabilitation program of the rail services on the central corridor. It must thus be consistent with the other rail projects (planning, capacity, technical characteristics, etc.) and with the port development projects.
Readiness	Concept in progress

[379] Source: corridor diagnostic, Nathan

[380] TICP, Aurecon, 2012: 21 USDm for project preparation; 2.4 USDm for operation and maintenance

[381] TICP, Aurecon, 2012

Cost	Unknown

12.1.2 Level 4: Increase capacity

Project	Expansion of dry- and break bulk facilities as a dedicated terminal[382]
Description	Creation of a specialist dry bulks terminal at berths 5-7 Expansion of grain silo
Agency	TPA
Expected impact	No bagging on the quay. Allowing larger vessels
Preconditions/ relation with other projects	
Readiness	Dry bulk terminal was a short term action in TPA master plan, but field investigation revealed continuing bagging at terminal. Grain silos were identified as long run project (2018-2019)
Cost	Unknown

Project	Construction of new berths Vijibweni
Description	Construction of a new terminal on the opposite side of the existing port. The areas include sufficiently secure land of 100 ha and quay walls of 3,000 m despite the required relocation of people/houses.
Agency	TPA
Expected impact	Expand the existing Dar es Salaam Port and to increase its capacity.
Preconditions/ relation with other projects	When expansion of the port on berths 13&14 is not sufficient.
Readiness	Designated in the Tanzania Port Master Plan (TPMP) as a medium to long term project; land acquisition in progress
Cost	657.2 USDm[383]

Project	Southern Bypass Dar es Salaam[384]
Description	Construction of a bypass south of Dar es Salaam, linking the port via Kisarawe with Mlandizi (on the road to Dodoma)
Agency	TANROADS
Expected impact	The construction of the southern bypass will provide an alternative route to the Dar es Salaam port. The roads with in the city leading to the port are congested. The new road will decrease delays in freight movement.
Preconditions/ relation with	Railway remains the preferential mode for accessing the port. The existing congestion will be reduced by improving junctions between the port and

[382] TICP, Aurecon, 2012

[383] Comprehensive Transport and Trade System Development Master Plan in the united Republic of Tanzania, JICA, 2012

[384] TICP, Aurecon, 2102

other projects	Morogoro Road, and by increasing the modal share of railway transport. Nevertheless, when traffic volumes in the port will keep on increasing, an additional road access might be necessary.
Readiness	Concept
Cost	NA

Project	Dar es Salaam area: Kisarawe freight station (KFS)
Description	This project entails the construction of a major ICD at Kisarawe (31 km from the port), aiming to become an extended gate relieving the city and the port of Dar es Salaam of congestion. The KFS will be connected to both TRL and TAZARA railways. The TAZARA connection will also be used by the dedicated shuttle line connecting the port and KFS.
Agency	TPA – RAHCO – TAZARA – Concessionaire
Expected impact	The construction of KFS aims to increase the port capacity, and reduce the city congestion and the ship-shore interface congestion. It could also help to reduce transport cost and environmental impact. It gives also an opportunity for Kisarawe area to become a pole of attraction for new value added activities and industrial development.
Preconditions/ relation with other projects	KFS can be a consolidating point and replace some existent scattered and rather small ICD's. But in comparison with the existent ICD's, KFS has some drawbacks (far from the port, difficult rail access, important construction cost, etc.). KFS must be studied in the global context and strategy for ICD's in the DAR area. An improvement of rail operation within the port area is also crucial for the KFS feasibility.
Readiness	Prefeasibility study carried out
Cost	Infrastructure: 183,2 USDm ; handling equipment: 43,2 USDm[385]

12.2 DAR ES SALAAM – TABORA – KIGOMA/MWANZA

12.2.1 Level 1: Reinstatement of the existing regional network

12.2.1.1 Railways

The diagnostic of the railway infrastructure and services on the Dar es Salaam – Tabora – Kigoma and Tabora – Mwanza lines previously presented, has identified that it is necessary to significantly improve the rail infrastructure and the rolling stock operated by TRL.

The interventions planned in the short term with the financial assistance of the World Bank foresee the rehabilitation of some railway sections requiring urgent repairs on the Dar es Salaam – Isaka line section.

It is therefore proposed to extend the programme of improvement of the rail infrastructure and of the rolling stock operated by TRL on the following two line sections:

- Isaka – Mwanza, so as to improve the connections with Shinyanga, Mwanza and Uganda via lake transport on Lake Victoria
- Tabora – Kigoma, so as to improve the connections in particular with Kigoma, Burundi and the Democratic Republic of Congo via lake transport on Lake Tanganyika.

The components of the programme are in principle similar to the interventions planned in the short term with the financial assistance of the World Bank.

[385] Prefeasibility study Kisarawe Freight station, Ecorys for the World Bank, 2011

Project	Rehabilitation of the Central railway line: Infrastructure
Description	Improvement of Rail Infrastructure - Rehabilitation of some railway track sections requiring urgent repairs on the Isaka – Mwanza and Tabora – Kigoma line sections - Rehabilitation of weak bridges to increase the capacity to minimum of 15 tons/axle load on the same sections - Bridge Assessment and Rating on the same sections
Agency	RAHCO
Expected impact	Rehabilitate the rail line to be functional and enable an acceptable level of maintenance.
Preconditions/ relation with other projects	Related to the improvement of Dar es Salaam – Isaka line section
Readiness	
Cost	To be defined

Project	Rehabilitation of the Central railway line: Rolling Stock and Institutional strengthening and capacity building
Description	• Rolling Stock - Procurement of locomotives and wagons: to be defined according to the updated needs • Institutional strengthening and capacity building - Setting up an efficient railway structure for long term sustainability of the project key elements by; ▪ Assessing current capability ▪ Designing the target organization to support the development of the railway activities on the Central, Mwanza and Kigoma lines with priority given to Isaka – Mwanza and Tabora – Kigoma line sections ▪ Capacity building to reach the target
Agency	TRL
Expected impact	Restore a viable rail operation with a minimum level of reliable intermodal service.
Preconditions/ relation with other projects	Related to the improvement of Dar es Salaam – Isaka line section
Readiness	
Cost	To be defined

12.2.1.2 ICDs

Project	Restore operation at Isaka ICD/ Put in operation Shinyanga and Mwanza ICDs
Description	The following elements are concerned: • Organization and management • Handling equipment • Operational staff • Customs staff and operations
Agency	TRL, RAHCO
Expected impact	Restore a viable rail operation with a minimum level of reliable intermodal service.
Preconditions/ relation with other projects	Related to the improvement of Dar es Salaam – Isaka - Mwanza line and to the restoration of a viable rail operation with a minimum level of reliable intermodal services
Readiness	Short term
Cost	To be defined

12.2.2 Level 2: Target capacity bottlenecks & black spots

12.2.2.1 Railway

The diagnostic of the railway line and services on the Dar es Salaam – Tabora – Kigoma and Tabora – Mwanza lines previously presented, has identified that it is necessary to significantly improve the rail infrastructure and the rolling stock operated by TRL.

In addition to the options already presented at Level 1, the following options are considered at Level 2:

Project	Rehabilitation of the Central railway line: Infrastructure
Description	• Bridges and Culverts - Regular inspection and routine maintenance has to be brought back into effective practice at all levels. This can be done by re-establishment of the Bridge section and reactivation of the now dormant Bridge yard. • Permanent Way - Upgrading of track ▪ The immediate and short term strategy of Railways is to bring back the confidence of the customers and the lost traffic to other modes. The immediate and short term moves should include: . Relaying the 56 lb/yd rail section with 80lb material . Removal of temporary and permanent speed restrictions . Replacement of old 56.12 and 60lb/yd yard turnouts with 80lb/yd turnouts . Removal and replacement of all the rotten timber sleepers in turnouts, bridges and in main lines. - Tabora - Kigoma and Tabora - Mwanza Lines ▪ Immediate action is needed to intervene the continuous deterioration of permanent way particularly on the Tabora - Kigoma and Tabora -

	Mwanza lines. This can be done by re-engagement of the stationed gang camps but since many of the houses provided for stationed maintenance gangs were abandoned, it is difficult to return to the same system which operated before RITES. It is therefore required to set up a new track maintenance system utilizing ballast tamping machines and ballast regulators. The existing ones may be uneconomical to rehabilitate so arrangement to purchase new ones in the short term period should be arranged. ▪ Contracting out to local contractors - Staff ▪ The age profile of staff is at the average of 50 years at all levels. This means from five to ten years to come there will be serious shortage of railway experienced staff. Intensive recruitment and training of permanent way supervision staff i.e. permanent way engineers, permanent way inspectors and gang leaders is required. This will be in line with re-activating the permanent way courses at Railway Training College Tabora. Skills improvement and training programme for staff at all fields and levels is a necessary input at the moment to manage the likely huge investments to come in the near future. - Permanent Way materials ▪ There is shortage of 60lb materials. In the efforts to upgrade the Central line with 80lb materials, part of the 60 lb stretches should be relayed immediately preferably DSM – Pugu so that the retrieved materials are kept for accident relief and to restore the uprooted loop lines in some stations. Many fittings especially Pandrol clips have been stolen and clips and bolts missing or damaged in derailments. These have to be purchased as an immediate requirement. - Buildings ▪ The maintenance section for buildings under the districts was dissolved. A programme to rehabilitate the station buildings, workshops and gang camps should be started by contracting out to local contractors. - Maintenance Equipment ▪ The track maintenance is not carried out properly or delayed due to lack of equipment. The tools and small track machines should be procured immediately while the heavy track machines could be purchased in the short and medium terms. Inspection and gang trolleys are required immediately so the Mobile maintenance Gangs MMG can be effectively productive.
Agency	RAHCO
Expected impact	Contribute to establish a viable and sustainable organization of RAHCO and rehabilitate the rail line to be functional and enable an acceptable level of maintenance.
Preconditions/ relation with other projects	Related to the rehabilitation of the Rolling Stock and Signaling, telecommunications, train control

Readiness	
Cost	To be defined

Project	Rehabilitation of the Central railway line: Rolling Stock
Description	• The core problem with the railway at the moment is poor availability and reliability of rolling stock. The short and long term plans should focus on the sustainable availability, proper management, maintenance and utilisation of the rolling stock in accordance with the evolution of the requirements. • Recruitment and training of key staff taking into account that the average age is about 50 years. • Outsourcing some of the activities such as locomotive rebuild, wagon rehabilitation, trimming, painting workshops cleaning services etc.
Agency	TRL
Expected impact	Contribute to establish a viable and sustainable organization of TRL and restore an efficient rail operation.
Preconditions/ relation with other projects	Related to the rehabilitation of the Permanent Way and Signaling, telecommunications, train control
Readiness	
Cost	To be defined

Project	Rehabilitation of the Central railway line: Signaling, telecommunications, train control
Description	• The Tanzania Railways network's operational communication and signaling services are hard hit by vandalism and theft. In particular, any use of copper-based or steel-based infrastructure in future will be a waste of much needed resources unless special attention is given to its protection against vandals. • The relatively new Dodoma-Tabora telecommunications system which has been designed with a goal of effectively fighting vandalism and theft, shows that it is possible to win the war in telecommunications at least. • In signaling, a big number of semaphore signals suffered parts theft country-wide, while the colour light signaling system and associated token less block system DSM NGR suffered from vandalism, rendering it inoperable. The token block systems that operated well in lines with open wire transmission systems were widely affected by wire thefts. In addition, existing systems are difficult to maintain due to lack of funds for buying spares, while some of the systems are obsolete. • The best option would be to install a GPS controlled block. Such a system is currently operating in Zimbabwe. This system is cheap, effective, and not subject to pilferage. • With the serious manpower wastage in the near future it is recommended to re-introduce training classes for short courses at the Tanzania Railways Training Institute for Signals and Telecoms staff. Such training should be undertaken using the most qualified senior staff in the department so as to transfer their skills to the less qualified targeting the young artisans and technicians.
Agency	TRL
Expected impact	Contribute to establish a viable and sustainable organization of TRL and restore an efficient rail operation.
Preconditions/ relation with other projects	Related to the rehabilitation of the Permanent Way and Rolling stock
Readiness	
Cost	To be defined

12.2.2.2 Road

As an alternative by rail is provided on this segment, the objective is only to provide a minimum level of investment on the road network.

Project	Upgrade of Nzega-Kagongwa (Isaka) road from gravel to paved
Description	Pavement of the road over a length of 66km.
Agency	TANROADS
Expected impact	The pavement of this section will improve road access for an expected 249 light vehicles and 217 heavy vehicles per day.
Preconditions/ relation with other projects	Railway remains the preferential mode for accessing the port of Dar es Salaam
Readiness	Concept studies completed, pre-feasibility in progress

Cost	79 USDm[386]

Project	Modernisation of weighbridges along central corridor
Description	Weighbridges in Kibaha, Kihonda, Mikese, Singida, Mwendakulima, Kahama, Nyagahura
Agency	TANROADS
Expected impact	Load regulations are enforced by numerous weighbridges, which are mandatory for all commercial vehicles, regardless of origin or destination. 7 hours in total; Kibaha 1h45; Kihonda 49m ; Mikese 44m; Dodoma 31m; Singida 19m; Mwendakulima 30m; Kahama 66m; Nyakahura 59m[387]
Preconditions/ relation with other projects	Railway remains the preferential mode for accessing the port of Dar es Salaam
Readiness	Planned by TANROADS
Cost	Unassessed

12.2.3 Level 4: Increase capacity

Project	Standard Gauge Dar es Salaam – Tabora – Mwanza/Kigoma
Description	Upgrading of the existing railway to standard gauge, using 120 lb/yd track poundage and concrete sleepers, on the following segments: - Dar es Salaam – Tabora: 840 km - Tabora – Kigoma: 411 km - Tabora – Isaka – Mwanza: 379 km.
Agency	RAHCO
Expected impact	If the volume of handled goods in the port of Dar es Salaam will further increase, capacity of the existing highway might not be sufficient. Upgrading the railway to standard gauge will increase the capacity of the railway system, and allow transportation of larger volumes by rail and reduce transportation costs and time.
Preconditions/ relation with other projects	This project will only be necessary when handling capacity of the port of Dar es Salaam increases and results in greater transport volumes. Also on the landside, the railway needs intermodal connections, with ICD's.
Readiness	Feasibility commenced
Cost	Dar es Salaam – Tabora: 2495 USDm Tabora – Isaka: 389 USDm Isaka – Mwanza: 769 USDm Tabora – Kigoma: 1220 USDm[388]

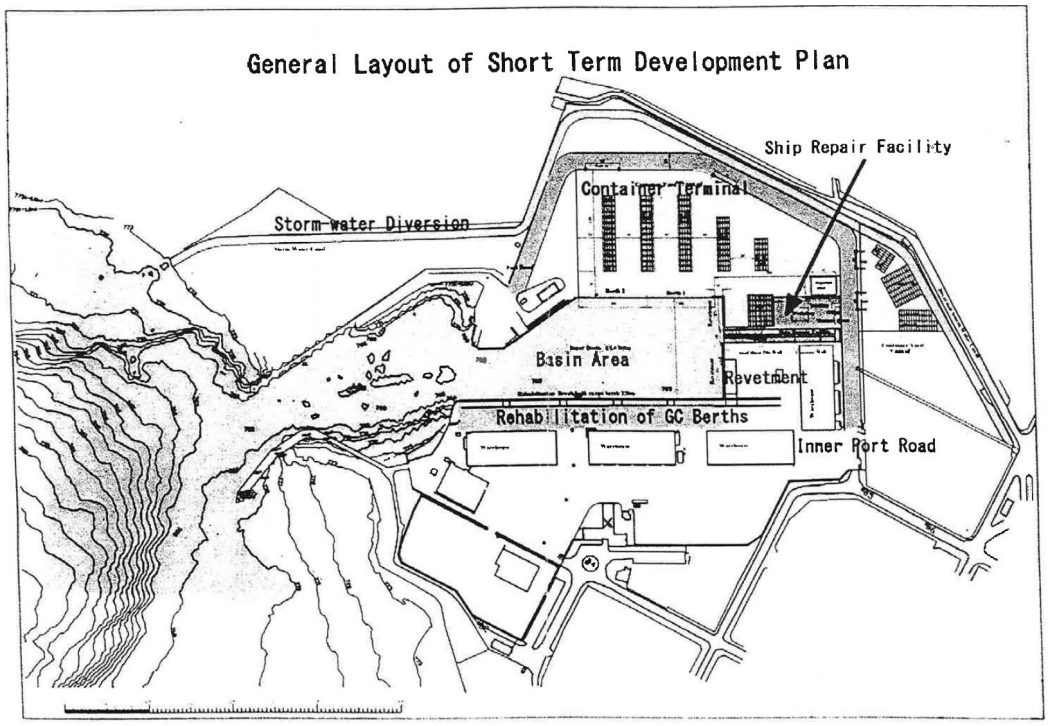
[386] TICP, Aurecon, 2012

[387] Policy Brief on Road Blocks, CEP, 2012

[388] TICP, Aurecon, 2012

12.3 LAKE TRANSPORT ON LAKE TANGANYIKA

12.3.1 Level 1: Reinstatement of the existing regional network

Project	Rehabilitation port of Bujumbura
Description	Rehabilitation of the port of Bujumbura consists of the following actions: 1. Sewer channel deviation project 2. Dredging activities in the basin area 3. Ship Repair facility 4. Rehabilitation of the berths (deepening basin, fitting rubber fenders, elevating apron, reinstallation of crane rail) 
Agency	Burundi Maritime, Port and Railway Authority
Expected impact	These actions are expected to restore water depths, remove sedimentation, increase capacity and efficiency of the existing facilities and to maintain the Burundi vessel capacity.
Preconditions/ relation with other projects	In the framework of Bujumbura Port Masterplan[389]
Readiness	Feasibility study done Financing plan under discussion with JICA and AfDB
Cost	Sewer channel deviation project: 2 USDm Dredging activities in the basin area: 0.8 USDm Ship Repair facility: 10 USDm Rehabilitation of the berths: 2.8 USDm[390]

[389] Master plan for the Development of the Port Sector in Burundi, JICA, 2012

[390] Master plan for the Development of the Port Sector in Burundi, JICA, 2012

12.3.2 Level 2: Target capacity bottlenecks & black spots

12.3.2.1 Bottlenecks of port operations

Project	Redevelopment of general cargo berths in Kigoma to a single level[391]
Description	The bi-level quay in Kigoma is in bad shape and needs rehabilitation or replacement
Agency	TPA
Expected impact	Facilitating horizontal transfer operations
Preconditions/ relation with other projects	Could be combined with development of container wharf
Readiness	Unknown
Cost	Approx. $10m

12.3.2.2 Container handling on Lake Tanganyika

The Lake Tanganyika provides a link between Kigoma and Bujumbura, but transportation capacity is limited. To make use of this potential, it is necessary to facilitate container handling. Like in the case of Lake Victoria, there is the choice between RoRo-services and LoLo-services[392].

Project	Container terminal in the port of Bujumbura
Description	2 container berths of 80m Apron of 30m width 44000m² container stacking yard Mobile container TS crane 2 reach stackers 1 tractor & chassis
Agency	Burundi Maritime, Port and Railway Authority
Expected impact	Increase efficiency of container operations
Preconditions/ relation with other projects	Masterplan Port of Bujumbura
Readiness	Container operations in Kigoma, railway Kigoma – Dar es Salaam
Cost	Terminal: 11.2 USDm Equipment: 9.2 USDm[393]

Project	RoRo-services on Lake Tanganyika
Description	- mobilising the private sector to establish RoRo services (new vessels) - provide equipment at the ports of Bujumbura and Kigoma like barges, MAFI trailers and importation of tugs[394] - Kigoma port: chassis pool, reach stacker or 40 ton forklift
Agency	Burundi Maritime, Port and Railway Authority

[391] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[392] As more elaborately described in the Appendix F of the Corridor Diagnostic Study of Nathan Associates, 2011

[393] Master plan for the Development of the Port Sector in Burundi, JICA, 2012

[394] TICP, Aurecon, 2012

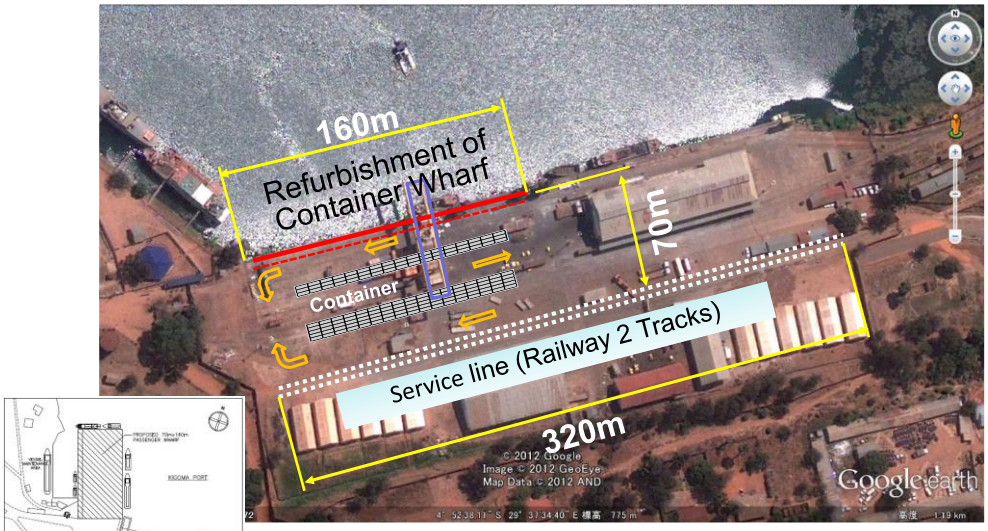
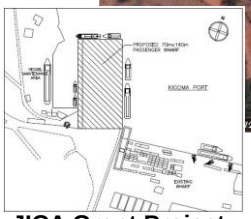
	TPA
Expected impact	
Preconditions/ relation with other projects	Rail connection in Kigoma & container terminal in the port of Bujumbura
Readiness	concept
Cost	

Project	LoLo-services on Lake Tanganyika
Description	Provide and install LoLo container handling equipment to the port of Bujumbura and Kigoma, including mobile harbour cranes, front loaders, reach stackers and tractor trailer units[395] Also the existing rail-wagon ferry services need to be converted into load-on load-off container carriers[396] New vessels to provide container barge distribution service Yard tractors and development of secured, hard packed and bonded holding area for clearing customs and stripping containers
Agency	Burundi Maritime, Port and Railway Authority TPA
Expected impact	
Preconditions/ relation with other projects	Rail connection in Kigoma & container terminal in the port of Bujumbura
Readiness	concept
Cost	

Project	Kigoma port container facilities
Description	Civil Works: • Re-alignment of railway tracks • Re-location of container stacking yard Equipment Procurement • 3 Reach Stackers • 4 Trailer Heads and Chassis Construction Period: 2013 – 2014

[395] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

[396] Integrated Transport Policy – Lakes Tanganyika and Victoria, Marine Logistics Limited, 2009

	  **JICA Grant Project** Increase the number of ground slot capacity to 144 TGS, Expand the container storage yard in landside areas for empty storage Convert back-port sheds into a CFS [397]
Agency	TPA
Expected impact	It is aimed to develop Kigoma as a counter port to Bujumbura to ensure that they together can accommodate container handling at lake Tanganyika.
Preconditions/ relation with other projects	In the framework of Bujumbura Port Masterplan[398]
Readiness	Feasibility study done, JICA funds appear available
Cost	$25m

[397] Integrated Transport Strategy – Lakes by Marine Logistics, 2009

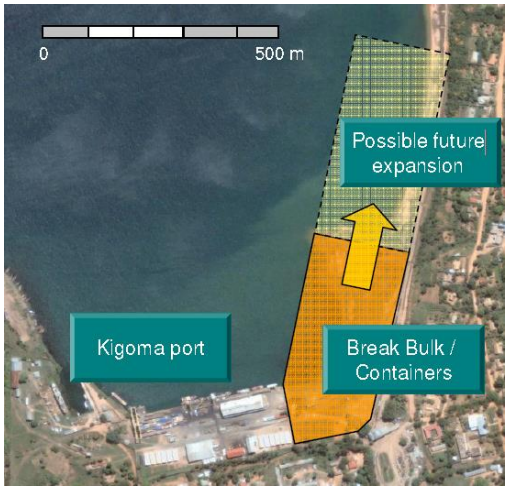
[398] Master plan for the Development of the Port Sector in Burundi, JICA, 2012

12.3.2.3 Safety

Navigational safety is a crucial bottleneck on the Lake Tanganyika.

Project	Navigational safety on Lake Tanganyika
Description	A study on Navigational safety on Lake Tanganyika identified the following priority interventions to improve navigation safety and security: Port safety: - Port operating manuals - Fire & dangerous goods training - Refurbish cargo equipment - AMPF capacity building Vessel safety: - Navigation chart of lake Waterways safety: - Installation of tide boards - Aids to navigation survey of lake - Install beach & jetty mooring - LTA capacity building - Support development of SAR capability Security: - Implementation ISPS at ports and ships - Acquire security assets.
Agency	AMPF, TPA, LTA
Expected impact	Improved navigation safety is expected to create a crowding-in effect leading to broader improvements in lake transport operations.
Preconditions/ relation with other projects	Also the construction of a ship repair facility in Bujumbura and a study on the replacement of MV Liemba are proposed actions to increase navigational safety, and are discussed in other parts. The mentioned measures to protect the environment are not discussed, as these will not affect transport operations significantly.
Readiness	Feasibility study done for Trade Mark East Africa
Cost	Abovementioned projects would amount to a total of approximately 5.7 USDm.

12.3.3 Level 4: Increase capacity

Project	Kigoma port container facilities future expansion
Description	
Agency	TPA
Expected impact	Facilitates future growth
Preconditions/ relation with other projects	Requires high volume development "The high forecast shows a very ambitious growth in container and break bulk cargoes. The combined berth requirements as calculated above are 1,130m, where 300m is available. Expansion area can be found on the North-East side of the port, where land can be reclaimed along the railway line to create a 700m quay. Likewise the required terminal area is not sufficient for storage and stacking. Area requirements for break bulk and container terminals would amount to almost 40ha, where some 6ha is available in the present port. The potential reclamation area would however only be about 10ha. The required area would therefore have to be found in other parts in and around the city. Area requirements should in this case also be reduced by reduction of dwell times, or higher stacking.".[399]
Readiness	No
Cost	Unknown

12.4 ISAKA - KIGALI - BUJUMBURA

12.4.1 Level 1: Reinstatement of the existing regional network

Rwanda is currently lacking a connection by rail, so access is limited to road transport. A first step would be to restore operations at the ICD in Isaka, and improve access by road from that point to Rwanda.

12.4.1.1 Railways and ICDs

Project	Upgrading of Isaka ICD
Description	Isaka ICD is an intermodal exchange point between the central railway and the road network to Rwanda and Burundi. The ICD and the station yard have to be improved to accommodate longer and more trains.

[399] TPA port master plan, Royal Haskoning, 2009

Agency	TRL, RAHCO
Expected impact	Encouraging the use of Isaka dry port will facilitate intermodal operations and the usage of the existing rail network between Isaka and Dar es Salaam, mainly for goods transported between Rwanda and Dar es Salaam. Currently there is no alternative by rail or inland waterways for the segment between Isaka and Kigali, therefore, a minimum level of service is required on this segment for road transport, to reduce transport time and cost on this route.
Preconditions/ relation with other projects	To facilitate intermodal transport between Dar es Salaam and Kigali, railway operations need to be smoothened on the segment between Dar es Salaam and Isaka.
Readiness	Concept
Cost	

12.4.1.2 Road

Project	Rusumo – Kayonza – Kigali
Description	Rehabilitation and upgrading of the road according to EAC standards, including upgrading to asphalt concrete, since the road is in a poor condition and some parts are gavel or bitumen.
Agency	RTDA
Expected impact	Upgrading this road would result in a significant improvement of the connection by road between Kigali and Isaka in Tanzania. Currently there is no alternative by rail or inland waterways for the segment between Kigali and Isaka, therefore, a minimum level of service is required on this road segment, to reduce transport time and cost on this route.
Preconditions/ relation with other projects	To facilitate intermodal transport between Dar es Salaam and Kigali, railway operations need to be smoothened on the segment between Dar es Salaam and Isaka, as well as the operation of the ICD in Isaka.
Readiness	Rusumo – Kayonza: Design complete
Cost	Rusumo – Kayonza: 70 USDm[400]

Project	Nyakasanza – Kobero – Gitega - Bujumbura
Description	Rehabilitation and upgrading of the road according to EAC standards, including upgrading to asphalt concrete, since the road is in a poor condition and some parts are gavel or bitumen.
Agency	Nyakasanza – Kobero : TANROADS Kobero – Bujumbura: OdR
Expected impact	Upgrading this road would result in a significant improvement of the connection by road between Bujumbura and Isaka in Tanzania, which would reduce transport time and cost on this route.
Preconditions/ relation with other projects	This project provides an alternative by road between the port of Dar es Salaam and Bujumbura, via Isaka. Nevertheless, the preferred access to Bujumbura via the Central Corridor, is the railway between Dar es Salaam and Kigoma, and by inland navigation between Kigoma and Bujumbura.
Readiness	Nyakasanza – Kobero : Design in progress Kobero – Bujumbura: Concept in progress; prefeasibility commenced

[400] TICP, Aurecon, 2012

Cost	Nyakasanza – Kobero : 35 USDm Kobero – Bujumbura: 235USDm[401]

12.4.2 Level 2: Target capacity bottlenecks & black spots

Project	Extension of the existing meter gauge railway line from Isaka to Kigali
Description	This project consists of the construction of a railway line between Isaka and Kigali via Keza, as an extension of the existing meter gauge line from Isaka.
Agency	RAHCO
Expected impact	This railway extension would make Kigali (Rwanda) accessible by rail, as the Isaka - Kigali section is at the moment only accessible by road. Providing a rail access would reduce transport time and cost between Kigali and Dar es Salaam.
Preconditions/ relation with other projects	To facilitate transport by rail between Dar es Salaam and Kigali, railway operations need to be smoothened on the segment between Dar es Salaam and Isaka.
Readiness	
Cost	Unknown

12.4.3 Level 3: Facilitate access to the corridor

Project	Railway line between Keza and Musongati
Description	This project consists of the construction of a new railway line between Keza and Musongati in Burundi. This railway line can be in standard gauge or meter gauge.
Agency	RAHCO
Expected impact	This railway extension would make Musongati (Burundi) accessible by rail, as Burundi is at the moment only accessible by road from Isaka. Providing a rail access would reduce transport time and cost between Musongati and Dar es Salaam.
Preconditions/ relation with other projects	This project is only relevant when there is a performant railway connection between Dar es Salaam and Keza. The gauge needs to be aligned with this railway connection, meter gauge or standard gauge.
Readiness	Feasibility commenced
Cost	2609 USDm (including segment between Isaka and Kigali)[402]

[401] TICP, Aurecon, 2012

[402] TICP, Aurecon, 2012

12.4.4 Level 4: Increase capacity

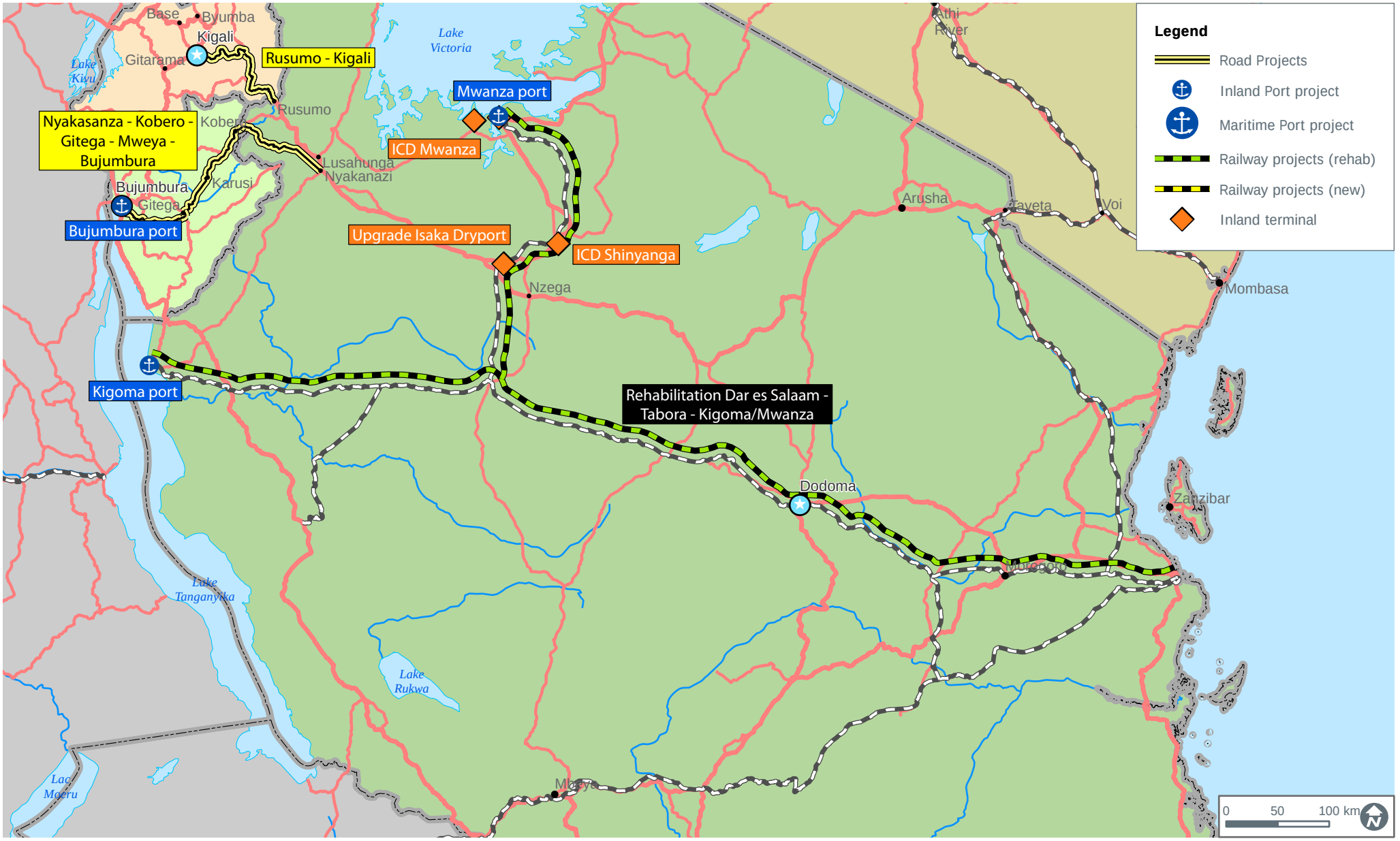
Project	Standard gauge railway line from Isaka to Kigali
Description	This project consists of the construction of a standard gauge railway line between Isaka and Kigali.
Agency	RAHCO
Expected impact	This railway extension would make Kigali (Rwanda) accessible by rail, as the Isaka - Kigali section is at the moment only accessible by road. Providing a rail access would reduce transport time and cost between Kigali and Dar es Salaam.
Preconditions/ relation with other projects	This project is only relevant when the railway line between Dar es Salaam and Isaka is also upgraded to standard gauge, with smooth railway operations.
Readiness	Feasibility commenced
Cost	2609 USDm (including segment to Musongati)[403]

12.5 INSTITUTIONAL DEVELOPMENT OPTIONS

The Institutional development options are presented by country rather than by corridor and have been presented for the Northern corridor: See chapter 11.5.

[403] TICP, Aurecon, 2012

12.6 MAP OF DEVELOPMENT OPTIONS LEVEL 1



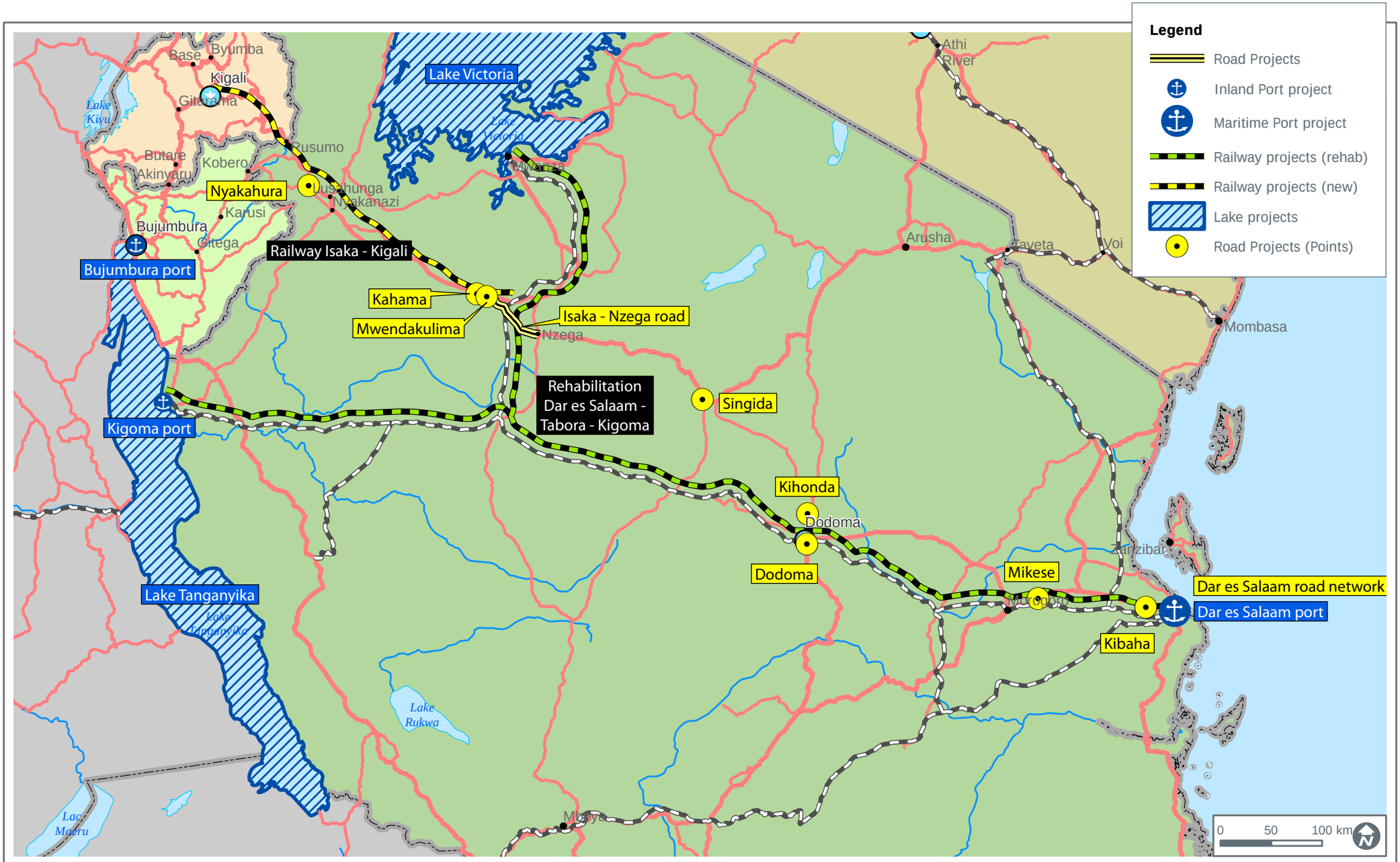
A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Central corridor: Development options Level 1

mtbs

TRACTEBEL Engineering
GDF SUEZ

12.7 MAP OF DEVELOPMENT OPTIONS LEVEL 2



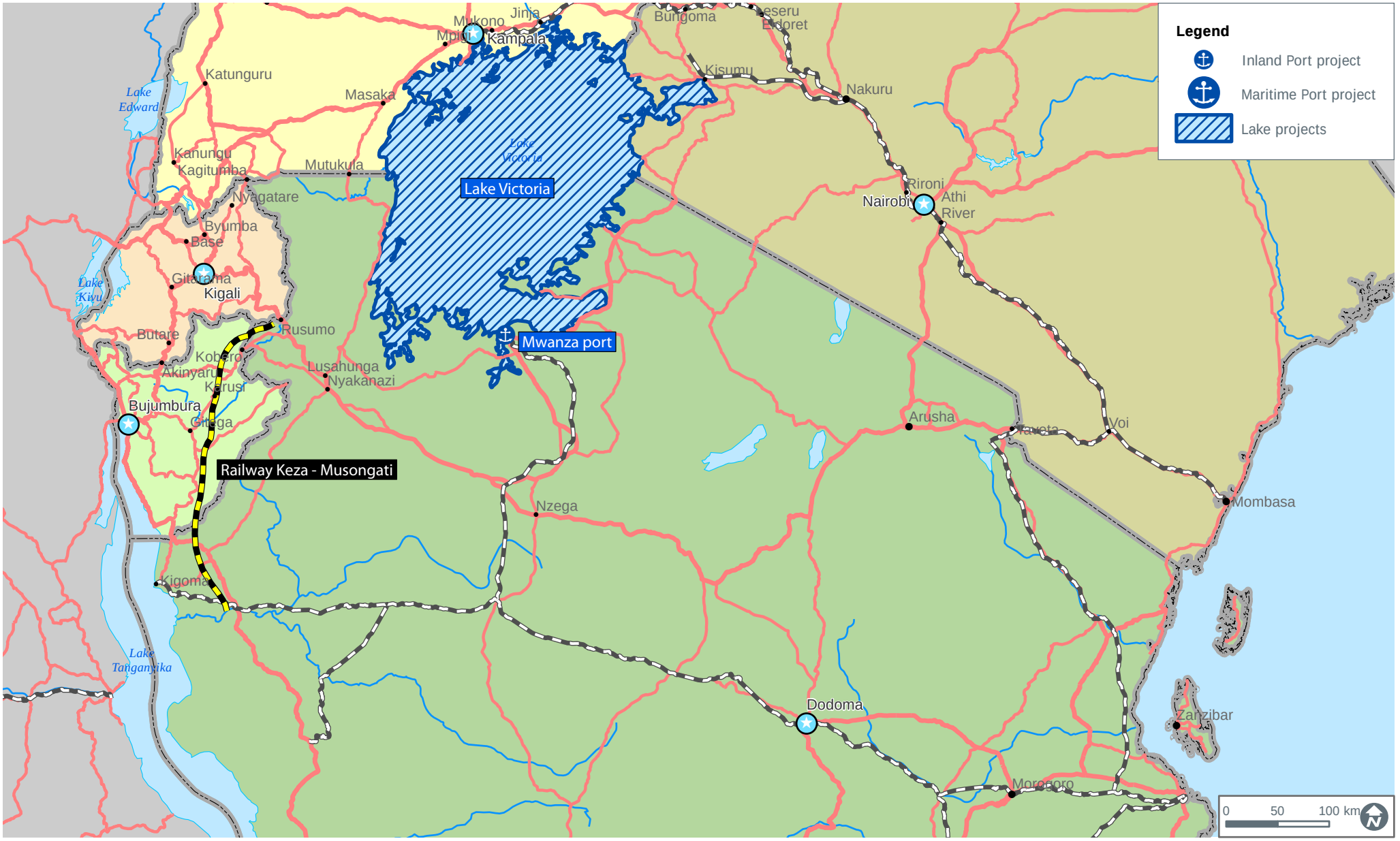
A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Central corridor: Development options Level 2

mtbs

TRACTEBEL Engineering
GDF SUEZ

12.8 MAP OF DEVELOPMENT OPTIONS LEVEL 3



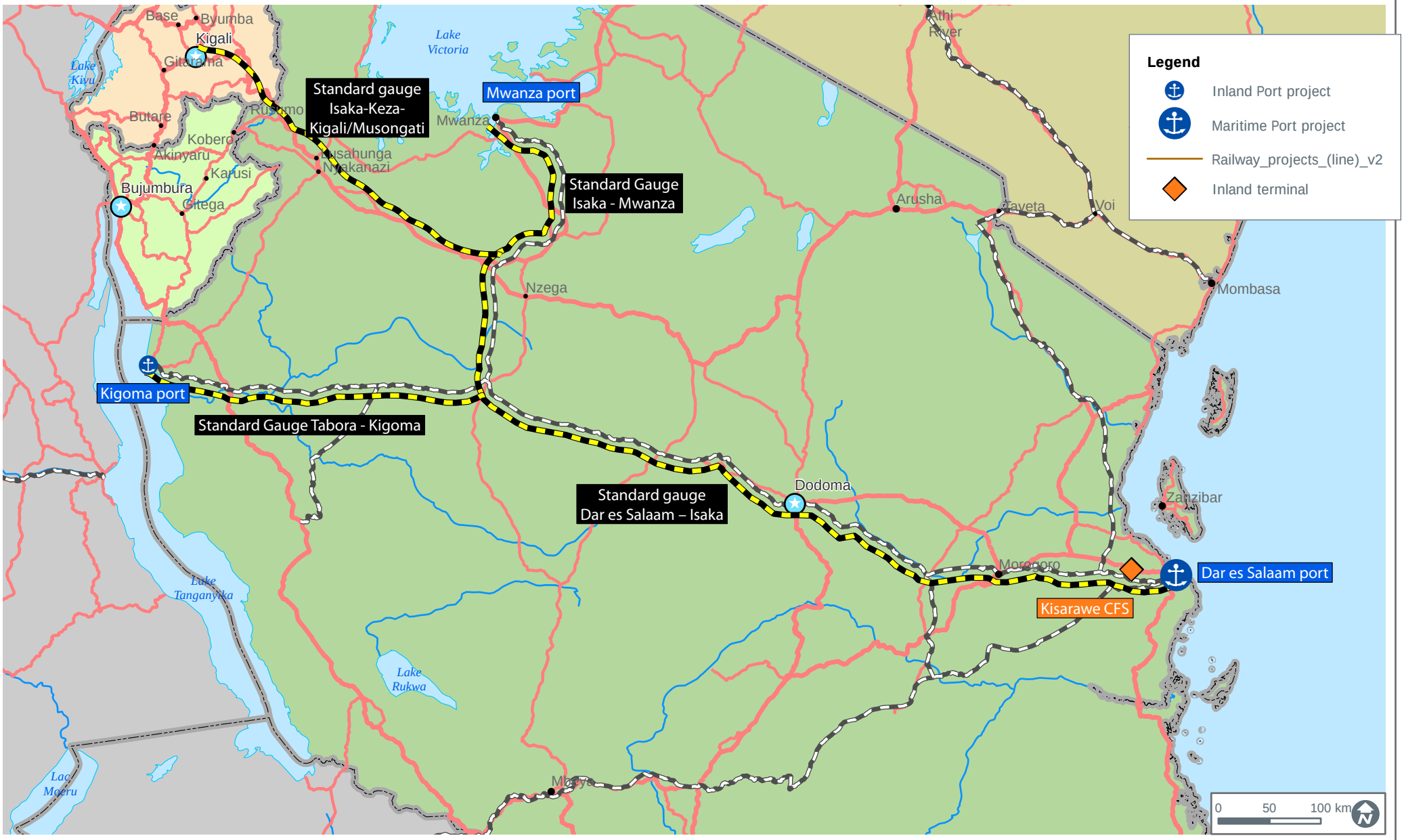
A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Central corridor: Development options Level 3

mtbs

TRACTEBEL Engineering
GDF SUEZ

12.9 MAP OF DEVELOPMENT OPTIONS LEVEL 4



A Regional Transport Intermodal Study and Action Plan in the Countries of the East African Community

1 Central corridor: Development options Level 4

mtbs

TRACTEBEL Engineering
GDF SUEZ

APPENDIX A - SUMMARY OF THE MAIN PROVISIONS OF REGIONAL CO-OPERATION INSTRUMENTS

Source: Nathan Associates (2011), Appendix A

OVERVIEW

This appendix offers a brief overview of the content of the following relevant regional co-operation agreements. There are four key instruments that deal with the central and northern corridors. As shown in the table below these are:

- EAC Treaty
- COMESA Treaty
- Northern Corridor Transit and Transport Agreement
- Central Corridor Transit Transport Facilitation Agreement

Each of these agreements contains particular agreements or protocols related to the specific transport modes.

Table Overview of regional co-operation agreements per transport mode

Road Transport	Inland Waterways	Railways	Maritime Transport	Pipelines
EAC Treaty (Chap 15)				
Common Market Protocol (Art 38 and Schedule on services)				
Tripartite Agreement on Road Transport	Tripartite Agreement on Inland Waterway Transport			
COMESA Treaty (Chap 11)				
Protocol on Transit Trade and Transit Facilities Protocol on Third Party Motor Vehicle Insurance Scheme COMESA Single Carrier License				
Northern Corridor Transit and Transport Agreement				
Protocol n° 2: Routes and Facilities Protocol n° 6: Transport of Goods by Road	Protocol n° 7: Inland Waterways Transport of Goods	Protocol n° 5: Transport of Goods by Rail	Protocol n° 1: Maritime Port Facilities	Protocol n° 8: Transport by Pipeline
Central Corridor Transit Transport Facilitation Agreement				

Apart from Tanzania, each EAC country is also a member of COMESA. As a result there is an overlap between the EAC Treaty and the COMESA Treaty. Consequently it is unclear which of these agreements is leading for the Northern corridor. For the Southern corridor the EAC Treaty is leading.

Table Application of instrument per corridor

Instrument	Northern corridor	Central corridor	Comment
EAC Treaty (Chap 15)	✓	✓	
COMESA Treaty (Chap 11)	✓		Tanzania is no member of COMESA
Northern Corridor Transit and Transport Agreement	✓		
Central Corridor Transit Transport Facilitation Agreement		✓	

The agreements fall into two categories. The first category includes the two treaties, the Common Market Protocol and overarching corridor agreements. These agreements reflect a broad consensus on issues of principle, but assume further work and negotiation will take place to operationalize this consensus in practice. Agreements in this category do not necessarily become effective immediately, but rather introduce a process of regional liberalization and harmonization. This is the case, for example, with the Common Market Protocol in which states agree to progressively open their markets to permit the free movement of persons, goods, capital and services over a period of years or even decades. The second group of agreements, which includes the Tripartite Agreements on Road Transport and Inland Waterways, already contain substantial operational detail. As such, the premise is that they can be implemented immediately or as soon as individual governments have amended laws and put in place the necessary personnel, procedures etc.

Table Type of agreement

Instrument	Principles	Operational	Comment
EAC Treaty (Chap 15)	✓		
Common Market Protocol (Art 38 and Schedule on services)	✓		
Tripartite Agreement on Road Transport		✓	
Tripartite Agreement on Inland Waterway Transport		✓	
COMESA Treaty (Chap 11)	✓		
Protocol on Transit Trade and Transit Facilities		✓	
Protocol on Third Party Motor Vehicle Insurance Scheme		✓	
COMESA Single Carrier License		✓	
Northern Corridor Transit and Transport Agreement	✓		
Protocols n° 1, 2, 5, 6, 7, 8		✓	
Central Corridor Transit Transport Facilitation Agreement	✓		

EAST AFRICAN COMMUNITY TREATY

The East African Community (EAC) has adopted various instruments which potentially impact transport efficiency on the corridors. These instruments are arranged in a hierarchy, with the founding treaty at the apex. To date, only road transport has been the subject of a specific sectoral agreement. This reflects the relative importance of road transport on the corridors vis-á-vis the other modes.

The Treaty establishing the East African Community of 1999 is the community's founding document. Apart from establishing its various institutions, the Treaty also contains 16 chapters spelling out the principles of co- operation between its members in various sectors. For the purposes of this study the most relevant are:

- Chapter 11: Co-operation on Trade Liberalization and Development; and
- Chapter 15: Co-operation in Infrastructure and Services.
- Chapter 11 commits the member states to the establishment of a custom union, which will be characterized, inter alia, by the use of harmonized customs documentation and procedures. In a further stage of development, it is envisaged that the customs union will make way for a common market characterized by the free movement of persons, goods, services and capital.
- Chapter 15 commits the member states to implement harmonized transport policies and expanded transport links. Areas of co-operation include: harmonizing laws, standards and procedures and improving and integrating transport infrastructure. Specific articles deal with each mode separately, as well as multimodal transport, freight forwarding, customs clearing and shipping agency.

Specific commitments contained in the Treaty which potentially impact corridor operations are:

ROAD TRANSPORT

- Harmonizing traffic laws;
- Harmonizing law on licensing of transport vehicles;
- Adopting common standards for vehicle construction and inspection; driver training and licensing;
- Minimum standards on transport of dangerous substances;
- Common standards on facilitation road transit traffic;
- Common rules on vehicle dimensions and load limits;
- Common standards of road network design and maintenance;
- Coordinating the implementation of trunk road projects;
- Common and simplified procedures for road transport and harmonized transit charges;
- Elimination of non-physical barriers to road transport;
- Non-discrimination against common carriers of one party in the territory of another party and equal treatment of operators; and
- Promoting competition in road transport.

RAILWAYS

- Common railway policies;

- Promoting autonomous railway management;
- Adoption of common safety rules;
- Harmonization and simplification of documentation;
- Harmonizing packing, marking and loading of goods;
- Applying non-discriminatory tariffs;
- Integrating operations to include synchronization of schedules and unit train operation;
- Measures to deploy rolling stock and locomotives to and from each other;
- Non-discriminatory service provisioning; and
- Joint utilization of facilities.

MARITIME TRANSPORT AND PORTS

- Harmonization of maritime transport policies;
- Commercialization and liberalization of port operations;
- Provision of access to land-locked states; and
- Non-discriminatory tariffs for goods from other member states.

INLAND WATERWAYS TRANSPORT

- Harmonization of inland waterways policies, rules and procedures;
- Joint use of maintenance facilities;
- Harmonizing tariff structures;
- Adoption of common rules on packaging, marking and loading;
- Non-discrimination in the allocation of cargo space; and
- Undertaking joint ventures and establishing joint shipping services;

MULTIMODAL TRANSPORT

- Harmonization of rules, procedures and documents applicable to implement multimodal transport;
- Adoption of common rules on packaging, marking and loading; and
- Provision of facilities for transshipment of goods, i.e. dry ports.

The Treaty also commits the member states to establish freight booking centers, and to harmonize requirements for registering and licensing freight forwarders, customs clearing agents and shipping agents. The EAC member states have given further effect to their co-operation in the area of road transport, by concluding the Tripartite Agreement on Road Transport.

The agreement (between Kenya, Uganda and Tanzania), introduces a single-permit system for goods and passenger transport. A transport operator need only obtain a permit from his home state to undertaken cross- border operations into the territories of the other parties. The parties also agree to mutually recognize each other's vehicle roadworthiness certificates. The parties re-affirm their commitment towards harmonizing vehicle dimension and mass limits as stated in the EAC Treaty, as well as road user charges.

The agreement creates and institutional framework to oversee it implementation. A Joint Technical Committee of the parties is established, while Route Management Groups can be established to oversee route operations on a more regular basis.

EAC Common market protocol

The Common Market Protocol was signed in 2009. Member states agreed that 1 July 2010 would mark the commencement date to operationalize the Protocol. The Protocol binds the member states to work towards realizing a common market characterized by the free movement of people, goods, services and capital. Transport has been identified as a sector in which states will progressively liberalize the free movement of services. The Protocol identifies four modes by which services can be supplied, following the same categorization as the World Trade Organization's (WTO) General Agreement on Trade in Services (GATS).

- Mode 1 – Cross border supply: Services supplied by a service provider in State A to a consumer in State B without the service supplier physically moving from State A
- Mode 2 – Consumption abroad: A consumer from State A purchases services from a service provider in State B
- Mode 3 - Commercial Presence: Service provider from State A establishes a physical presence in State B to supply services to consumers in State B
- Mode 4 - Presence of Natural Persons: Natural person from State A moves to State B to supply services in consumers in State B

Member states have made a number of commitments to liberalize the transport services market. These commitments cover all transport modes and are contained in a Schedule to the Protocol. The commitments range across all four modes of supply and apply both to market access and national treatment.

With regard to road transport, all states have made identical commitments to eliminate restrictions on the freedom to supply services by 2010. The only exception is Kenya, which has reserved the right to restrict the commercial presence of road freight hauliers from other member states. This implies that commercial trucking companies from other EAC states do not have an automatic right to establish offices and premises in Kenya and to market their services to Kenyan consumers.

Tripartite Agreement on Road Transport

The EAC member states have given further effect to their co-operation in the area of road transport, by concluding the Tripartite Agreement on Road Transport.

The agreement (between Kenya, Uganda and Tanzania), introduces a single-permit system for goods and passenger transport. A transport operator need only obtain a permit from his home state to undertaken cross- border operations into the territories of the other parties. The parties also agree to mutually recognize each other's vehicle roadworthiness certificates. The parties re-affirm their commitment towards harmonizing vehicle dimension and mass limits as stated in the EAC Treaty, as well as road user charges.

The agreement creates and institutional framework to oversee it implementation. A Joint Technical Committee of the parties is established, while Route Management Groups can be established to oversee route operations on a more regular basis.

Tripartite Agreement on Inland Waterway Transport

The Agreement was concluded by Kenya, Tanzania and Uganda in 2002. By virtue of their treaties of accession, Burundi and Rwanda subsequently also became bound by the Agreement upon joining the EAC.

The Agreement provides a comprehensive framework for regulating inland waterway shipping. It harmonizes requirements relating to ship documents and registration. It imposes common safety standards related to periodic ship surveys, safe manning requirements and the provision of aids to navigation and radio communication. The Agreement adopts the important principle that states should mutually recognize each other's registration, survey and safe manning certificates. The Agreement further commits the states to apply the IMO's rules on the prevention of collisions and to adopt common rules on conducting search and rescue operations. It also contains a commitment to harmonize rules on the prevention of marine pollution. The Agreement adopts several common principles governing the liability of carrier for loss or damage to goods and liability for personal injury and death arising out of the conveyance of passengers81.

COMMON MARKET OF EASTERN AND SOUTHERN AFRICA (COMESA TREATY)

The Common Market for Eastern and Southern Africa (COMESA) was established as successor to the

Preferential Trade Area (PTA) for Eastern and Southern Africa by treaty in 1993. The COMESA Treaty outlines a number of broad commitments with regard to co-operation in the transport sector. The main objectives of the common policy on transport are:

- adequate maintenance of roads, ports, airports and other facilities,
- the security of transport systems,
- the grant of special treatment to landlocked states; and
- the development of intermodal systems.

With regard to road transport, the parties agree to accede to international conventions on road traffic, road signals, etc., harmonize the provisions of their laws, standards, formalities, regulations, transit traffic, and ensure equal treatment of common carriers and road operators in all countries of the Common Market. In the railways sector, the priorities are common policies for the development of railways and railway transport, with common safety rules, procedures, regulations, non-discriminatory tariffs and standards of equipment.

The parties also commit themselves to the provision of better and more efficient air transport. Joint air services should be developed as steps towards the establishment of a Common Market airline. Common policies would involve the liberalization of granting traffic rights and coordinating flight schedules. The Treaty commits the parties to coordinate and harmonize maritime transport and to work towards efficiency and profitability in the ports services. Coastal states should facilitate the trade of landlocked states. International conventions on maritime transport - to be ratified and non-discriminatory tariffs are to be applied. The parties also agree to harmonize and simplify rules, procedures and regulations governing inland waterway transport and to co- operate in the development of pipeline transport.

COMESA has adopted a number of individual protocols to promote the facilitation of road transport, transit and customs procedures.

Protocol on transit trade and transit facilities

The Protocol on Transit Trade and Transit Facilities was issued as the Treaty on 5 November 1993, as Annex 1. The Protocol provides that until a common external tariff is established, all transit traffic has freedom to cross

the territories of the Common Market whether from or to partner states or from and to third countries, subject to any restriction imposed by a partner state for the purpose of safety, public health, etc., and generally the public interest. Transit trade is exempt from import or export duties and rates and tariffs applicable shall be applied without discrimination.

Protocol on third party motor vehicle insurance scheme

This Protocol constitutes Annex II to the COMESA Treaty. It provides for a common third party insurance scheme based on a Common Market Yellow Card issued by a National Bureau and handed over to motorists on the usual terms by an insurer authorized to undertake this type of business. National Bureaus, composed of insurers, will settle on behalf of the insurers the claims arising from accidents caused abroad by holders of cards that they have issued and claims arising from accidents caused in its country by holders of card issued by other National Bureaus.

Yellow Cards, proof of the existence of an insurance policy, are issued for a maximum of one year and for a specific vehicle. Notwithstanding the insurance policy under which it is issued, the Yellow Card

provides all the guarantees required by law governing motor vehicle insurance in the country in which the accident occurred. The Protocol provides for various institutions to administer the scheme. A Council of Bureaus, meeting at least once a year, is composed of representatives of all the Bureaus of the Common Market. The Council shall orientate, coordinate and supervise the insurance scheme established by the Protocol together with the legal, technical and financial operations of the National Bureaus. It settles disputes between Bureaus. An Inter-Bureaus Agreement determines the maximum amount for the delegation of the powers of settlement by one National Bureau to another, and the minimum handling fee payable for each case handled by them.

COMESA Single carrier license

All carriers engaged in transit traffic shall be licensed. Satisfaction of technical conditions of the carriage shall be a condition of licensing. A Standard Common Market Transit Document is prescribed to be used to accompany goods in transit. Transit goods will be transported under seal. Unless there is suspicion of abuse, goods in transit are exempt of import or export duties; and shall not be subject to Customs examination at Customs offices. All transit traffic shall be covered by Customs bonds and sureties arrangements.

NORTHERN CORRIDOR TRANSIT AND TRANSPORT AGREEMENT

Transport on the Northern Corridor is governed by a number of different protocols anchored in the Northern Corridor Transit Agreement (NCTA). The Agreement was originally concluded in 1985. In 1996, a decision was taken to review and update the Agreement. A revised version was adopted in 2007.

The NCTA establishes the principle of a right of transit for transporters and their vehicles between the territories of the parties (Burundi, DRC, Kenya, Rwanda and Uganda). The basic objective is that member states have agreed to grant each other the right of transit through their respective territories. This objective includes a commitment not to discriminate with regard to the country of original consignment or destination of the goods, or the country of registration of the vehicle.

The Agreement imposes a duty on Kenya to provide the necessary port facilities within its capabilities to facilitate the use of the corridor and to ensure that the port remains a competitive facility. Provision is made for specific transit routes to be agreed in Protocol nº 2 and the parties commit to providing the necessary facilities such as storage and stopover facilities. The Agreement commits the parties to ensure that transit goods are cleared expeditiously at frontiers and to establish adjacent joint customs posts so that repeated loading and off- loading can be avoided and to introduce other facilitation measures such as joint customs controls, adequate manpower, coordinated working hours, etc. The Agreement also contains a commitment to limit the use of document and procedures associated with transit transport, to harmonize documents according to the UN Layout Key for Trade Documents, to review documents and procedures periodically and to eliminate superfluous documents and procedures.

The Agreement contains several commitments relating to transport operations. The parties agree that one party must permit trucks and other transport equipment registered in the territory of another party to undertake both interstate and transit transport. Cabotage is expressly prohibited, unless this is permitted by the authority in the state concerned. The parties commit to harmonizing vehicle technical standards, dimensions and load limits. Other important undertakings include: equal treatment of nationals of the parties in allocating services and transport; non-discrimination in charges, the right of transport companies of one party to open offices in the territory of another party. The parties also agree to implement the COMESA Yellow Card to cover third party liability in their territories.

Various protocols contain detailed provisions to further implement the commitments made in the main agreement. These protocols are:

- Protocol nº 1: Maritime Port Facilities
- Protocol nº 2: Routes and Facilities
- Protocol nº 3: Customs Control and Operations Protocol nº 4: Documentation and Procedures Protocol nº 5: Transport of Goods by Rail Protocol nº 6: Transport of Goods by Road
- Protocol nº 7: Inland Waterways Transport of Goods
- Protocol nº 8: Transport by Pipeline
- Protocol nº 9: Multimodal Transport of Goods
- Protocol nº 10: Handling of Dangerous Goods
- Protocol nº 11: Measures of Facilitation for Transit Agencies, Traders and Employees

Protocol Nº 1: Maritime Port Facilities

This Protocol requires Kenya to provide the necessary port facilities, including sheds and warehouses, at Mombasa. The Protocol governs the use of these facilities. Ships registered in or chartered by one of the parties to the Agreement must be treated equally. Fees and charges on vessels and cargoes may also not be discriminatory.

Protocol Nº 2: Routes And Facilities

This Agreement specifies transit routes to allocate traffic to routes capable of carrying such traffic, or to avoid routes that are not. The aim of the Agreement is also to permit customs control, and to distribute the costs for construction, maintenance and repair of the road network between the parties. The Protocol affirms that roads should be safe, secure and in good condition. On these routes, parties are required to provide facilities and services such as first aid services, repair facilities, fuel filling stations, storage areas, buildings, etc. Tariffs for the use of facilities or the delivery of services should be at the rates that apply to nationals of the country in which the facility is located or the service rendered. During repair work and in case of emergency, transit traffic may be prohibited by any party.

Protocol Nº 3: Customs Controls And Operations

Protocol nº 3 has a main text and three Annexes setting forth: (a) the format of the COMESA Common Market Transit document, (b) the minimum requirements to be met by customs seals and fastenings and giving the list of international instruments providing for the conditions and procedures for the approval of transport units.

The Protocol binds the parties to limit their customs control to the minimum required to ensure compliance with applicable laws and regulations. Joint Customs control at border crossing (frontier points) shall be facilitated. Procedures for transit traffic are detailed in the Protocol, which also specifies rules regarding customs security and guarantees for transit operations. The Protocol also commits the parties to adopting the use of the Common Market Transit document and the COMESA Regional Customs Bond Guarantee Scheme. Annex I contains the format of the Transit document. Annex II to the Protocol sets the minimum requirements to be met by customs seals and fastenings. Annex III gives the list of international instruments providing for the conditions and procedures for the approval of transport units.

Protocol Nº 4: Documentation And Procedures

The aim of this Protocol is to reduce the number of documents needed for transit of goods and the simplification of procedures. For the purposes of the Northern Corridor transit operations, documents are required to comply with ISO standards, UN Layout Key for Trade Documents, the UN Convention on International Multimodal Transportation of Goods, etc. Standard formats of documents such as the Standard Rail waybill and the Road waybill are attached.

Protocol Nº 5: Transport Of Goods By Rail

This Protocol deals with transport by rail of goods in transit. Border stations and traffic interchange stations where connecting and transit services are to be undertaken are specified. The parties agree that the inspection of goods carried in transit must be conducted so that wagons in transit are not unduly detained. Lastly, the Protocol sets the rules regarding liability of the respective rail carriers involved in transit operations.

Protocol Nº 6: Transport Of Goods By Road

This Protocol provides for the interstate and transit transport of goods by road. It provides that the parties shall mutually recognize each other road transport licenses and that a license issued by one party grants the right of entry into the territory of the other party for the purposes of interstate or transit transport. The parties also further agree to respect the COMESA Carrier License regime.

It lays down rules regarding (a) road transit transport, (b) technical requirements of vehicles, and (c) transport contracts and the liability of road carriers. The basic rule is that national laws and regulations of the Contracting Party on whose territory the operation is being carried out are applicable.

Road transport permits may be issued by states on the territory of which transport takes place, provided the vehicle carries a certificate of fitness and complies with the technical requirements for road vehicles as specified in the Protocol.

A consignment note (bill of lading) is evidence of a contract if carriage and must contain the particulars specified in the Protocol as well as any particulars agreed by the parties to the contract.

The Protocol introduces a liability regime which holds the carrier liable for loss, damages and delays. Burden of proof shall rest on the carrier, who may be relieved from liability by the wrongful act or neglect of the claimant and in a number of circumstances listed in the Protocol, such as defective condition of packing, carriage of livestock, etc. The Protocol also lays down rules regarding liability in case of delay in delivery; goods should be delivered within thirty days. Rules on compensation in case of loss or delay in delivery are also laid down. Compensation is based on market value of goods at the place and time where and when they were accepted for carriage, with a ceiling calculated in special drawing rights (SDR), applicable except when a special declaration of value has been entered in.

Protocol Nº 7: Inland Waterways Transport Of Goods

The Protocol commits the parties to equal treatment of their nationals and flagged vessels. The parties agree that no one carrier will be granted exclusive rights to navigation or carriage of inter-state or transit traffic. The parties also commit themselves to take measures to ensure the navigability of waterways.

Protocol Nº. 8: Transport By Pipeline

The Protocol contains the basic commitment to ensure the uninterrupted flow of petroleum products through the pipeline.

Protocol Nº. 9: Multimodal Transport Of Goods

The Protocol governs procedures for the multimodal transport of goods on the corridor. It details procedures for the conclusion of a multimodal contract and specifies the contents of the multimodal transport document. It regulates out the liability of the multimodal transport operator and sets out his duties in delivering goods to the consignee.

Protocol Nº 10: Handling Of Dangerous Goods

This Protocol regulates the carriage of dangerous goods. These are handled and transported "in accordance with accepted international recommendations which are identified in the Protocol as including the International Maritime Dangerous Goods Code.

Protocol Nº 11: Measures Of Facilitation For Transit Agencies, Traders And Employees

This Protocol addresses the provision of facilities and arrangements for transit employees. Each party is required to permit duly recognized carriers of another party to set up agencies within its territory. Multiple entry visas are to be issued to employees of transport enterprises and their travel facilitated. The parties also agree to issue a laissez-passer to transit and transport operators and their staff and regulates the manner in which employees of agencies are to be identified by means of service cards.

CENTRAL CORRIDOR TRANSIT TRANSPORT FACILITATION AGREEMENT

Corridor operations on the Central Corridor are guided by the Central Corridor Transit Transport Facilitation
Agreement (CCTTFA).

The main objectives of the Agreement are:

- To make the Central Corridor available to shippers from landlocked states as an efficient and economic trade route and encourage cost reduction;
- To market the corridor to increase its use;
- To support planning by member states through collection and analysis of traffic data,, business information and comparative corridor data;
- To promote infrastructure maintenance and upgrading;
- To maintain and open and competitive environment and encourage business partnerships;
- To encourage intergovernmental co-operation;
- To promote harmonization of bilateral transport agreements and national laws and standards; and
- To encourage improved customs transit procedures and joint customs controls.

Arts 4 – 11 of the Agreement mirror verbatim the provisions of the 1986 version of the Northern Corridor Transit Agreement. Similarly, the Agreement also provides for implementing provisions to be detailed in Protocols to the main agreement. However, the CCTTFA lacks the implementing protocols that support the implementation of the NCTA. These are in the process of development.

APPENDIX B – BACKGROUND ON PREVIOUS RECOMMENDATIONS LEGAL AND REGULATORY FRAMEWORK

In 2011 a study has been carried out on the legal and regulatory framework of the EAC countries. Recommendations from that study has been used as a starting point for update in the analysis of section 2.2. this appendix contains background on the recommendations from Nathan Associates (2011)

Background former recommendations on railways

Framework for PPP arrangements

The remarks made above with regard to the need for suitable PPP project identification, preparation and procurement rules in road infrastructure and ports, also apply to the railways. The problems experienced with the cancellations of concessions and the non-compliance with concession agreements highlight the need to invest in better PPP project preparation and oversight.

R 1: Burundi, Rwanda and Uganda must adopt PPP project identification, preparation and procurement rules in line with best practice. Tanzania must refine its PPP Act to clarify approval stages and institutional responsibilities including the role of government in the day to day operation of railway companies and the appointment of suitably qualified board members.

R 2: EAC and member states must investigate options to bolster regional capacity in PPPs.

Independent regulatory framework for railways

Only Tanzania has undertaken institutional reforms to set up an independent railway regulator (SUMATRA), while proposals for a similar arrangement are being studied in Uganda.

R 3: Kenya (and Burundi and Rwanda once final decisions are taken to incorporate the latter two states in the regional railway network) must establish an independent regulator for the railway sector.

Background on Nathan Associates' (2011) recommendations re Table 2 11 Issues, deficiencies, potential impact and recommended actions re Road Transport: Legal and Regulatory Framework

Regulatory gap in road transport

R 1: The EAC member states must take prompt action to implement the EAC Tripartite Agreement on Road Transport on the Northern and Central Corridors and for all other road transport between their territories using other routes.

To do so, technical assistance is likely to be required to:

- Revise existing legislation and adopt new legislation to domesticate the Agreement in the national laws of the member states;
- Design licence application, adjudication and issuing procedures and forms;
- Design license administration software systems and procure hardware;
- Train personnel in the handling of applications, adjudication and issuing;
- Train law enforcers in the application of on-the-road enforcement of the rules under the Agreement;

- Develop transport supply and demand capacity to manage competition between carriers from different states; and
- Undertake monitoring and evaluation.

R 2: EAC member states must harmonize road transport policy and adopt a common regulatory regime for road transport aimed at raising quality standards and improving safety. (…) consideration should be given to an ECA Road Transport and Traffic Act which provides a framework for the regulation of international and domestic road transport supported by an appropriate institutional framework. Tanzania's system of economic regulation is the most advanced and offers a potential model for the region, but needs further refinement. Such a policy must adopt clear goals with regard to desired economic, social and environmental outcomes and propose a comprehensive regulatory system in order to achieve them. Technical assistance is likely to be required to:

- Design the features of the regulatory system through a process of stakeholder consultation;
- Develop an appropriate institutional framework;
- Draft an EAC Road Transport and Traffic Act and implementing regulations;
- Define standard for access to the road transport profession;
- Develop procedures for evaluating applicants and issuing operator licenses;
- Design support software and procure hardware to operate a multi-module database;
- Conduct training of regulatory and law enforcement personnel; and
- Undertake monitoring and evaluation.

(It should be noted that the process of domesticating the EAC Tripartite Agreement as proposed under R .1 can be folded into the adoption of the EAC Road Transport and Traffic Act).

Distorting effects of customs regulations

The regulatory vacuum has also meant that policy towards road transport has been dictated by the tax- collection concerns of revenue authorities. While these concerns may be legitimate, revenue authorities are not technically-competent to formulate policy for road transport, nor able to implement regulatory frameworks aimed at stimulating efficient service delivery, ensuring cost effective operations and promoting operator, driver and vehicle safety. The decision by the Kenya authorities to transfer all regulatory functions to the KRA appears particularly ill-advised.

The impact of the licensing regime in Kenya and Tanzania being implemented by the revenue authorities is a major constraint to the efficient use of transport equipment and a contributor to the high transport costs that burden the region. The restrictions imposed on the ability of carriers to freely utilize vehicles licensed for cross- border operations, reduce efficiency and raise costs. A better compromise needs to be achieved between concerns to prevent revenue loss and optimal usage of transport equipment.

R 3: The license conditions whereby transit vehicles and vehicles carrying goods under customs control may not be used for domestic and other types of carriage must be phased out. It must be recognized that the current situation arises from legitimate concerns on the part of all stakeholders: (a) customs authorities wish to combat illegal dumping of import goods which are transported under bond and destined for export while (b) transporters are concerned with optimizing their investment in transport equipment. To this end, it is recommended that the EAC facilitate discussion between revenue authorities, transporter associations and transport ministries in order to arrive at a suitable arrangement. In this regard, the approach adopted by the TRA to permit transit vehicles to load backhauls from domestic destinations provided that the vehicle travels the same route and complies with customs clearances at destination, offers a starting point which could be emulated in other countries.

Developing the regional market in road transport services

As noted above, Kenya has reserved the right to restrict transport firms from other EAC states to establish a commercial presence in Kenya. No other EAC state imposes such restrictions.

R 4: It is recommended that Kenya reconsider its restriction on market access for foreign trucking firms. An open market in trucking services has demonstrated benefits in terms of improved transport efficiencies and maintaining competitive pricing in Southern Africa. Similar benefits are likely to be captured once the

Tripartite Agreement on Road Transport is implemented.

(Source: Nathan Associates 2011 p.24-25)

Long-standing delays in harmonizing load limits and overloading control strategy

Despite recorded agreement between the RECs and individual states, axle mass limits are still not harmonized. Gross vehicle mass limits have been harmonized at 56,000 kg except for Burundi and Rwanda. Moreover, only Tanzania has implemented the REC-approved decriminalisation of overloading offences and administrative penalty system, while this is under consideration in Kenya.

R 1: It is recommended that all states revise their legislation to (a) implement the REC-approved load limits and (b) adopt the administrative system of overloading control. Two options are available: (a) revision of individual national laws or (b) the adoption of an EAC Act on Vehicle Overloading Control. The former is likely to be a lengthier process, but could be helpful in ensuring that there is national buy-in for the process. The adoption of an EAC Act may be a speedier route to adopting a regional benchmark, but must be accompanied by thorough national consultation to ensure buy-in by all states.

Poor enforcement

Poor enforcement and ineffective weighbridge management practices are partially a result of the current regulatory vacuum in road transport regulation discussed in the previous section. None of the states have an efficient system of pre- and post-market entry qualitative regulation to enable the authorities to take effective action against carriers cited for overloading or other transport offences. As a result, the only enforcement option remains on-the-road weighing of vehicles in order to detect and penalize offenders. The introduction of qualitative licensing will provide authorities with additional weapons in their enforcement arsenal. This would include the ability to suspend or withdraw carrier licenses in response to specific offences. It could also include a system of rewarding compliant carriers through measures akin to the "accredited operator" system applied by customs authorities.

R 2: Implementation of the common regulatory regime for road transport (see discussion under road transport)

(Source: Nathan Associates 2011 p. 35-36)

Background on Nathan Associates' (2011) recommendations re Table 2 11 Issues, deficiencies, potential impact and recommended actions re Road Infrastructure: Legal and Regulatory Framework

Lack of enabling framework for road PPPs

All states lack an enabling framework for road sector PPPs. Kenya has initiated some ROT contracts and is able to rely on general PPP rules to overcome shortcomings in its sector legislation to ensure that these PPPs can proceed. However, in the longer term Kenya, as well as the other states will require tailored roads PPP legislation. The principal advantage is to (a) build confidence in government's commitment to a PPP programme, (b) reduce perceptions of political and legal risk (thereby contributing to reducing project costs) and (c) clarify management roles, functions and responsibilities for project management and oversight.

R 1: Member states must revise existing road laws (or adopt new laws) to provide a comprehensive enabling framework for road infrastructure PPPs. Amongst others, such legislation must address:

- Designation of the contracting authority;
- Empowering the private road operator (management company / concessionaire) to erect toll stations, collect tolls, undertake traffic management, conduct weighing operations;
- Procedures for toll adjustments; and
- PPP contract monitoring and evaluation (responsibilities and procedures).

Lack of PPP project identification, preparation and bidding rules

Apart from Kenya, (and more recently, Tanzania) the remaining states all lack appropriate rules governing PPP project identification, preparation and bidding. As discussed above, Tanzania has adopted new legislation in 2010, which require improvement to meet best practice. The main threats posed by the lack of dedicated PPP rules are:

- Lack of clarity on the part of government authorities about how to identify and prepare bankable projects.
- Vulnerability of projects to improper influence due to inadequate economic and financial evaluation and lack of proper due diligence regarding social, environmental and legal aspects.
- Poor project preparation resulting in (a) projects which do not attract competent bidders or (b) failed projects.
- Lack of investor interest due to perceptions of weak PPP management capacity within government.
- Inadequate appreciation on the part of government of fiscal risks associated with projects dependent on government guarantees.
- Inability on the part of contracting authorities to manage and oversee project implementation and compliance by the private party with contractual obligations.

R 2: Burundi, Rwanda and Uganda must adopt PPP project identification, preparation and procurement rules in line with best practice. Tanzania must refine its PPP Act to clarify approval stages and institutional responsibilities.

Limited PPP implementation capacity

PPP project implementation capacity is limited in all states. A PPP unit has been established in Kenya and legislation now provides for similar institution(s) in Tanzania. As yet, there are no PPP units in Burundi, Rwanda or Uganda.

PPP capacity constraints are common in many countries worldwide. Given the limited PPP activity in most states, it may be difficult to justify building extensive capacity in individual national PPP units.

R 3: EAC and member states must investigate options to bolster regional capacity in PPPs. One option that can be considered is the establishment of a regional PPP unit. The advantage of a regional unit would be to pool scarce expertise and thereby develop stronger PPP capacity than national governments may be able to build individually. A regional unit could develop into a centre of excellence and provide advisory services as and when needed for individual national projects. At the same time, it could act as support unit for regional projects which may in future be undertaken as PPPs. Technical assistance would be required to:

- Study institutional options and define the status of the unit within the overall structure of the EAC;
- Define the role, functions and duties of the regional unit vis-à-vis national units and contracting authorities;
- Recommend an organizational structure and staffing;
- Propose funding options; and
- Recommend and draft an appropriate legal instrument to establish the unit.

(Source: Nathan Associates 2011 p.29)

Background on Nathan Associates' (2011) recommendations re Table Table 4 1 Summary table national transport policy issues

Existing transport policies all recognize the need for states to comply with commitments arising from their membership of regional organizations – RECs (EAC, COMESA, SADC) and corridor organizations to improve corridor performance. However, policies do not spell out how governments will implement the commitments they have assumed in signing up to membership of RECs and corridor institutions. This is a significant failure in all states, especially with regard to road transport which is the dominant transport mode on both corridors (see

section on Regional Co-operation Instruments below).

As a result, current policies do not (a) identify regional instruments which governments are required to implement (e.g. the Tripartite Agreements on Road Transport and Inland Waterways), (b) assess which legislative and institutional measures are needed to implement regional agreements domestically or (c) quantify these commitments in terms of required financial and human resources. There is also evidence of national priorities intruding and overshadowing regional commitments. For example, despite a commitment towards liberalization of the cross-border road transport market, several countries' policies express sentiments aimed at protecting their trucking industries from foreign competition. This creates a space for new non-tariff barriers to be introduced (as illustrated in the road transport sector – see discussion below).

Lengthy policy development and implementation processes

In most states, the process of policy development and implementation is too lengthy. This undermines the relevance of the policy documents. While policy is under development, officials are constrained from embarking on new programmes and initiatives, as there is an understandable tendency to await the outcome of the policy process. Moreover, if policies are not formalized (vide Kenya, Uganda), policy proposals are not translated into appropriate legislation and programmes. In the absence of a legislative mandate, transport ministries are constrained in motivating for additional funds to implement new or expanded programmes.

Notwithstanding the fact that some states' policies are outdated, there have been piecemeal reforms that have superseded existing policies which indicate that governments have embarked on new policy directions. This is the case, for example, in Tanzania, which has revised its ports legislation to implement the landlord port authority model, despite the fact that this is not expressly foreseen in the existing policy.

In view of the above findings, the following is recommended:

R 1: The EAC and member states must collectively develop a Common Transport Policy giving effect to Art
89 of the Treaty. Various ongoing initiatives, such as the EAC Transport Strategy and the Trade and Transport Facilitation Study, are expected to provide a framework and inputs to this process. The aim must be to develop a common vision for the regional transport sector, backed by harmonized policy goals and programmes – giving effect to existing regional instruments such as the Common Market Protocol and the Tripartite Agreements on Road Transport and Inland Waterways. At the same time, the process must ensure that national policies are aligned to pursue complementary policy objectives and programmes. The development of a common policy is likely to be a phased process18 and should commence with regard to priority sectors, such as road transport (which accounts for over 90 percent of the market in all member states). It could be undertaken by way of a Protocol (capturing the main policy goals and detailing the implementation measures) and further elaborated by way of an individual Act (or Acts) adopted by the EAC Legislative Assembly (see discussion in the next chapter on the proposed EAC Road Transport Act).

R 2: Pending the development of a common policy, existing national policies must be aligned to ensure greater complementarity. There is a need to bridge the gap between the regional decision-making activities of the RECs and national implementation. To this end, national policies must (a) clearly identify the regional commitments which governments have assumed, (b) include a strategic analysis of national measures required to implement regional decisions and (c) set definitive timelines for implementation.

R 3: RECs and their member states need to invest more human and financial resources in policy making and monitoring capacity. There is a need for governments to move beyond the stage where policy development is viewed as an arcane, "add-on" activity, to where it occupies a central position as a daily government function. To this end, the capacity of the EAC Secretariat must be strengthened with the appointment of a full-time policy advisor. The advisor will play a central role in coordinating the development of a common policy, assisting national governments in aligning national policies with regional objective and monitoring policy implementation on behalf of the sectoral Council. Similarly investment in capacity is needed in all member states. In particular, the aim must be to (a) shorten policy development time; (b) support ministries to translate policy into legislation and other programmes; and (c) build effective monitoring and evaluation

capacity so that progress towards specific goals is measured effectively.

(Source: Nathan Associates 2011 p.11-12)

APPENDIX C – STAKEHOLDERS

For item 2.3: Review of the Current procedural steps for transit cargo compared to international best practices.

Stakeholders	**Place**	**Date**
Fred Paul Babalanda, Northern Corridor Transit Transport Coordination Authority (NCTTCA)	Mombasa	23, 26, 30 Oct 2013
Mohammed Faruk, Kenya Ports Authority	Mombasa	18,19 Oct 2013
Isaac Omoke, Kenya Ports Authority	Mombasa	18, 19 Oct 2013
Weldon Korir, Kenya Ports Authority	Mombasa	19, 21- Oct 2013
Venant Ntahonsigaye, Trade Mark East Africa, Nairobi	Nairobi	12-10-2013
S. Kaombwe, Transport Expert (telephone & email)	Dar es Salaam	16, 20, 27, Oct 2013
Hosea Nyangweso, EAC (telephone & email)	Arusha	16,25 - Oct 2013
Rukia Shamte, Central Corridor Transport and Trade Facilitation Agency (CC-TTFA) (telephone & email)	Dar es Salaam	16-10-2013

APPENDIX D – INSTITUTIONS

INSTITUTIONS

The survey of the sector authorities and institutions across the region and describe their roles, functions and responsibilities with a view to establish their capacities and relevance in introducing, regulating, operating and maintaining an integrated rail-centric intermodal service has been undertaken by firstly identifying the key players along the brackets of regional multinational facilitators, national regulators, sectoral organisations and private sector stakeholders. Further the overview has been done along certain parameters of judging the relevance and roles that these bodies would play. It was important to critically examine the organisational set ups of these bodies and their track record on previous assignments so as to evaluate their capacity. Evaluation of their staffing levels and competences in order to come up with a more scientific result was necessary but limited by the time available and the geographical spread of the Authorities. The time constraints for this study necessitate a more extensive sampling or in-depth evaluation of the bodies and organisations which the Consultant recommends should be done as a standalone study.

For purposes of this study it has been considered that there are certain fundamental parameters that can be used to assess the key players in the transport sector with a view to establishing their capacity and relevance to establishing an integrated rail-centric mode of transport. These parameters are;

(i) Mandate of the organisation
(ii) Governance structure
(iii) Accomplished the Sector Projects
(iv) Legal Capacity to contract
(v) Opportunity for private sector partnership

Mandate of the Organisation

This basically would relate to the purpose for which the organisation was formed, incorporated or founded and will vary from statutory, incorporation to association. The importance of this parameter is that it gives the organisation a legally recognised objective or purpose for which it is answerable or accountable. The mandate becomes the point of reference in determining whether legal framework exists within which the organisation can discharge the intended task. In the case of an integrated rail-centric mode of transport it would be necessary to establish that the organisation is mandated to deal with matters relating to the transport sector.

Governance structure

Governance is the avenue through which any organisation effectively mobilises the different resources and opportunities available to it and ensures that they are applied to their optimal capacity whilst remaining answerable to the corporate and statutory obligations of the sector. In this regard it would be important to ascertain whether the bodies have a clear definition of duties and responsibilities that allow for policy making, executive planning, implementation of decisions and checks and balances to prevent abuse. It is therefore critical that for effectiveness the bodies exhibit these defined areas of governance structures.

Accomplished sector projects

It is not sufficient that the organisation is dully mandated and has a governance structure but that it has a demonstrated track record of operation in the sector. This brings to the table institutional memory and wealth of expertise acquired over time that would prevent situations that amount to trial and error in planning, implementing and monitoring the projects

Legal capacity

Legal personality to contract and undertake projects and programs is of importance as well because an integrated rail-centric system will entail engagements across different bodies and commitments with legal and contractual implications. It would therefore be a key factor in determining the organisations fitness for the purpose. It would be closely tied to mandate but goes further in ensuring that the organisation is registered and able to engage as a legal person.

Opportunity for Private Sector Partnership

The nature of an integrated transport system such as the one in issue is such that there are huge financial outlays involved and in the context of the East African Community if it was left to governments alone may never be realised. It is therefore important that the identified organisations have within their mandate and establishment or operational areas the possibility whether by law or internal objectives for engagement with private sector on partnership basis. A lot of these would be covered under the national legal framework as well as the memoranda and objects of incorporation of the organisations.

On the basis of these parameters therefore the following institutions are identified as key players for the details provided on each.

REGIONAL INSTITUTIONS

Central Corridor Transit Transport Facilitation Agreement (CCTTFA)

Mandate

Established in 2008 and bringing together the five countries of Tanzania, Uganda, Rwanda, Burundi and Democratic Republic of Congo (DRC) the CCTTFA is a multilateral corridor management agency covering the Central Corridor with offices in Dar es Salaam. It draws its funding from the member states and strategic donors and partners.

It covers Dar es Salaam Port, Tanzania Railways from Dar es Salaam to Kigoma, East and Central DRC, Rwanda and Uganda, the activities of Lakes Tanganyika and Victoria and all roads from Dar es Salaam to the other countries.

Governance Structure

Its organisational set up has the following;

(i) The Interstate Council of Ministers

This is the top policy making organ comprising of the Ministers in charge of transport or their equivalents from each member state

(ii) The Executive Board

This is made up of the Permanent Secretaries/ Director Generals of the responsible Ministries of transport in the member states and private sector representatives

(iii) STACO

This is the Stakeholders Consultative Committee comprising of actors in the transportation sectors in the member states which makes recommendation to the board

(iv) STAREP

This is the Stakeholders Representatives Group comprising of Three from each member state and is a working group for STACON to oversee affairs between meetings and recommend action

(v) The Permanent Secretariat

This is the executing arm of the Secretariat charged with implementation of decisions of the above bodies and execution of the day to day functions.

The Key Functions of the Secretariat are as follows;

(i) Ensure that the corridor is available for exporters and importers and importers from the landlocked countries
(ii) Monitor route performance along the corridor
(iii) Work with stakeholders to reduce route costs
(iv) Promote best practices
(v) Coordinate and harmonise procedures
(vi) Coordinate players in the industry
(vii) Monitor cost reduction and logistics
(viii) Market the corridor for more usage

Experience in the Sector

The Secretariat is relatively young though enjoying a central role in any proposed developments along the Central Corridor because it brings together the Governments of the member states and the private sector entities thereby making it a suitable avenue for policy making, planning of projects, implementation, monitoring and evaluation. Its major weakness is that it depends on a grant by the African Development Bank for funding as the member states are yet to commit to membership fees. It also faces direct competition from the Tazama Corridor which could undermine its role.

Legal Capacity

Because it is mandated under a Transit Agreement which came into effect in 2008 by all the member states it is empowered to contract on their behalf likely to be acceptable especially on cross boundary issues.

Further its secretariat would be better equipped to deal with the local political issues and prioritisation of projects in the appropriate context. Its experience with past projects along the corridor will also bring on board valuable institutional memory and relevant contact with expertise on the ground.

Its neutrality would facility easier mobilisation of funds as accountability is assured.

The Northern Corridor Transit Transport Coordination Authority

Legal Capacity

The Northern Corridor Transit Transport Coordination Authority was created in the mid-1980s, following the signing of the Northern Corridor Transit Agreement by Burundi, Kenya, Rwanda and Uganda. The Democratic Republic of Congo became a contracting state of the NCTTCA in 1987 after ratifying the treaty.

Governance Structure of the NCTTCA

There are 3 principal organs of the NCTTCA, namely:

The Authority, which is a Council of Ministers of the member states, responsible for transportation;

The Executive Board, which is an Inter-governmental Committee of Permanent Secretaries and other senior government officials; and

The Secretariat, headquartered in Mombasa, Kenya and headed by an Executive Secretary is the executing organ.

Mandate of the NCTTCA

The NCTTCA mandate is stipulated in the in the Transit Agreement and they include:

Safeguarding the freedom of transit and right of access to and from the sea for the landlocked countries;

Ensuring implementation of and compliance with the provisions of the Transit Agreement;

Joint promotion and coordination of the development of regional transport infrastructure;

Reduction of transport costs through the removal of all barriers to traffic using the corridor;

Harmonization of transit transport policies and technical standards in order to facilitate operations along the corridor;

Promotion of regional consensus on all matters relating to the management of the corridor and which are of mutual benefit to the member States; and

Cooperation with other international organizations.

Under the Executive Committee there are four committees namely, Public Private Partnership Committee, Infrastructure Development Committee, Customs & Trade Facilitation Committee and Transport Policy & Planning Committee.

Of key interest are the Transport Policy & Planning Committee, the Customs & Trade Facilitation Committee and the Infrastructure Development & Management Committee which are charged with the mandates to among others

(i) Harmonise & streamline policies & legal frameworks for transport
(ii) Performance monitoring and evaluation
(iii) Rationalize and minimize trade costs
(iv) Promote private sector participation in policy formulation and implementation
(v) Develop opportunities and incentives for increased private sector investment and participation
(vi) Expansion, modernization and improvement of transport infrastructure and service related to roads, rail, pipeline, ports, inland waterways, border posts, terminals and communication systems

NATIONAL INSTITUTIONS AND ASSOCIATIONS

Rwanda Development Board

Legal Capacity

The Rwanda Development Board was set up by bringing together all the government agencies responsible for the entire investor experience under one roof. This includes key agencies responsible for

business registration, investment promotion, environmental clearances, privatization and specialist agencies which support the priority sectors of ICT and tourism as well as SMEs and human capacity development in the private sector.

The RDB is **independent and influential**. It reports directly to the President and is guided by a Board that includes all the key Ministers (e.g., finance, commerce, infrastructure, agriculture)

It is modeled on international best practice examples of Singapore and Costa Rica. It has advisory and hands-on support from global entrepreneurs and experts from Singapore Development Board, World Bank, IFC and the Office of Tony Blair.

Experience in Sector Projects

Isaka- Kigali Railway

The Isaka-Kigali Railway is one part of a wider project which will link Isaka (Tanzania) to Kigali (Rwanda) and Keza (Tanzania) to Gitega and Musongati (Burundi)
The project entails:

- The construction of two new lines (Kigali to Isaka and Gitega and Musongati to Isaka)
- The rehabilitation of the existing Isaka to Dar Es Salaam line
- Acquisition of rolling stock to carry passengers, cargo and ore traffic

Feasibility studies were completed in June 2009 by the German rail company Deutsche Bahn with AFdB funding and validated by the Tanzanian, Rwandan and Burundian governments.
Subsequently, Burlington Northern Santa Fe Railway (BNSF) conducted a separate feasibility study in 2009 suggesting alternative (AREMA) standards which are estimated to cost about US $ 4.7 Billion to be implemented on a Public Private Partnership basis on a Build Operate and Transfer (BOT) model.

Bugesera International Airport

This is a new international airport designated to be constructed in Bugesera district, around 40km from Kigali city centre and with a number of attractive attributes:

- A basic plateau running to river valleys located North, East and West of the site;
- The river valleys are relatively deep (+30m);
- The border with Burundi is located approximately 23 km to the South;
- There are no large tracts of forest, no major standing water on the site and no major cross wind problems;

The airport project is on a Public Private Partnership model and once built at a total cost of US $ 635 Million will increase the country's capacity of passenger handling:

- From 400,000 per annum to 1.8 million by the end of phase one (2030),
- To 10-12 million by the end of phase 2 and
- To 50-60 million by the end of phase 3

Surface & Marine Transport Regulatory Authority of Tanzania (SUMATRA)

Mandate: Sumatra Act of 2001

The SUMATRA Act 2001 sets out the following as role of the Authority.

a) promoting effective competition and economic efficiency;

b) protecting the interests of consumers

c) protecting the financial viability of efficient suppliers

d) promoting the availability of regulated services to all consumers including low income, rural and disadvantaged consumers.

e) Enhancing public knowledge, awareness and understanding of the regulated sectors including as to

(i) the rights and obligations of consumers and regulated suppliers;

(ii) the ways in which complaints and disputes may be initiated and resolved;

(iii) the duties, functions and activities of the Authority.

f) taking into account the need to protect and preserve the environment

g) taking into account the need to regulate safety and security in the transport sector.

Functions and objectives

According to Section 6-(1) of the Act, the functions of the Authority are as follows:

a) to perform the functions conferred on the Authority by sector legislation.

b) subject to sector legislation ?

(i) to issue, renew and cancel licenses.

(ii) to establish standards for regulated goods and regulated services.

(iii) to establish standards for the terms and conditions of supply of the regulated goods and services.

(iv) to regulate rates and charges.

(v) to make rules.

c) to monitor the performance of the regulated sectors, including in relation to:-

(i) levels of investment.

(ii) availability, quality and standards of services

(iii) the cost of services

(iv) the efficiency of production and distribution of services, and

(v) other matters relevant to the Authority

Kenya Maritime Authority

Mandate and Legal Capacity

Kenya Maritime Authority (KMA) was set up in June 2004 as the semi-autonomous agency in charge of regulatory oversight over the Kenyan maritime industry. Subsequently it was incorporated by the Kenya Maritime Authority Act 2006 as a State Corporation with attendant legal personality. Maritime safety and security is one of the Authority's core functions. As the pacesetter of the Kenyan maritime industry, KMA thus strives to strengthen national maritime administration through enhancement of regulatory and institutional capacities for safety and security, fostering effective implementation of international maritime conventions and other mandatory instruments on safety & security, promoting maritime training, coordinating Search and Rescue, preventing marine pollution and promoting preservation of the marine environment as well as promoting trade facilitation and maritime investments. The enactment of a new Merchant Shipping Act, 2009 has enhanced delivery of services by the Authority in these areas.

Foreign Ships calling at the port of Mombasa, Kenya are inspected by KMA ship surveyors in accordance with (IOMOU) Indian Ocean Memorandum of Understanding on Port State Control to which Kenya is a member. This is to ensure that ships comply with safety of life and safe manning regulations, protection of the marine environment regulations and loadline regulations, among others.

As part of the core mandate Kenya Maritime Authority is responsibility for the operation of the Regional Maritime Rescue Co-ordination Centre (RMRCC), now also known as the Mombasa Information Sharing Centre(ICS). The Centre provides a communication center where seafarers can call in for help in cases of distress while at sea, in a large area covering Tanzania, Seychelles and Somalia as well as receiving and responding to piracy alerts and requests for information or assistance at all times.

Sector Experience

Kenya Maritime Authority has been in the lead in promoting maritime training and education in Kenya. Kenya's recent entry into the International Maritime Organisation's (IMO) White list status was an affirmation that Kenya's maritime education now meets international standards, enabling its seafarers to compete for jobs on international ships. As the pacesetters of the Kenyan maritime industry and in solidarity with the International Maritime Organisation's (IMO) 'Go to sea campaign', the Authority has intensified its focus on boosting the image of the maritime jurisdiction.

Governance Structure

KMA is headed by a Board of Directors as the top policy organ mandated with the shaping of the maritime industry.

The executing arm of the body is the Director General who oversees several departments of technical and administrative staff

Legal Capacity

KMA is a State Corporation dully incorporated under the The Kenya Maritime Authority Act with powers to sue and be sued and contract as appropriate.

Rift Valley Railways

The Rift Valley Railways Consortium (**RVR**) is a limited liability consortium that was established to manage the parastatal railways of Kenya and Uganda. The consortium won the bid for private management of the century-old Uganda Railway which was previously run by the East African Railways and Harbours Corporation.

Mandate

Section 19 of the Kenya Railways Corporation Act provides that **"**Except with the consent of the Minister and subject to the right of the Government to provide and operate transport services, other than the carriage of passengers or goods for hire or reward, for its own purposes -

(a) no rail transport services shall be provided; and

(b) no railway shall be constructed for the carriage thereon of goods or passengers for reward,

within Kenya by any person other than the Corporation or a person appointed in accordance with section 11A or, to the extent permitted by law, the Kenya Ports Authority.

Experience in the Sector

The railway line runs some 900 kilometres from Kenya's the Indian Ocean port of Mombasa, through Nairobi, and up the Rift Valley to Kisume on the shores of Lake Victoria. Another leg of the same railway system traverses the Great Rift Valley, through the town of Eldoret inKenya, enters Uganda at Malaba and passes through Tororo and Jinja to enter Kampala, Uganda's capital. From Kampala, the railway continues on to Kases inWestern Uganda, close to the border with theDemocratic Republic of Congo, approximately 1,600 kilometres, northwest ofMombasa, Kenya. At Tororo, the northern leg of the Ugandan railway system branches off and travels northwestwards, throughMbale, Soroti and Lira to end in the city of Gulu, the largest metropolitan area inNorthern Ugana. From Gulu, the line continues west to Pakwach, on the banks of the Albert Nile where the recent discovery of oil in Uganda was made, approximately 1,500 kilometres, northwest of Mombasa, Kenya.

Originally, RVR was led by Sheltam Rail Corporation of Sheltam Trade Close Corporation (STCC) of South Africa that has experience with management of other African railways. Minor partners of the consortium were Kenya's Prime Fuels (15%), Mirambo Holdings of Tanzania (10%) and Comazar (10%) and the CDIO Institute for Africa Development Trust (4%), both of South Africa. The consortium plans to invest in the railway system, upgrade it, reduce inefficiencies, utilize a smaller work force, and generate an annual concession fee of 11.1% in each country.

The Concessionnaire is at an advanced stage of constructing a standard guage railway line between Mombasa and Nairobi then extending to Kampala Uganda.

Kenya Pipeline Company Limited

Mandate & Legal Capacity

The Kenya Pipeline Company (KPC) Limited is a State Corporation established on 6th September, 1973 under the Companies Act (CAP 486) of the Laws of Kenya and started commercial operations in 1978. The Company is 100% owned by the Government and complies with the provisions of the State Corporations Act (Cap 446) of 1986. The Company operations are also governed by relevant legislations and regulations such as the Finance Act, the Public Procurement Regulations, and Performance Contracting.

The main objective of setting up the Company was to provide efficient, reliable, safe and cost effective means of transporting petroleum products from Mombasa to the hinterland. In pursuit of this objective, the Company constructed pipeline network, storage and loading facilities for transportation, storage and distribution of petroleum products.

The Company's other mandate includes:

1. To build a pipeline for the conveyance of petroleum or petroleum products from Mombasa to Nairobi.
2. To own, manage or operate such pipelines and any other pipelines and associated ancillary facilities.
3. To market, process, treat, deal in petroleum products and other products and goods and provide transport and other distributive facilities, outlets and services in connection therewith

Operating Service Principles

KPC's operating service principles are: -

1. Maintaining and promoting the highest standards of professionalism;
2. Promoting efficient, effective and economic use of resources;
3. Providing effective, impartial, fair and equitable services;
4. Being responsive to stakeholders' needs;
5. Being transparent and accountable in provision of services;
6. Adhering to good corporate governance;
7. Handling our stakeholders with dignity, courtesy and utmost respect
8. Treating information provided by our stakeholders with integrity;
9. Promoting dynamism and innovative practices through continuous improvements of systems and processes
10. Giving back to society by engaging in Corporate Social Responsibility Programmes.

Governance Structure

The current organization structure comprises Government appointed Board of Directors headed by a non-executive Chairman and a management team under the Managing Director supported by three Chief Managers (Technical, Finance & Strategy and Human Resource & Administration).

Departments

There are eleven departments namely, Engineering, Operations, Business Development, Corporate Planning, Finance, Human Resources, Internal Audit, Information Communication Technology, Secretarial, Administration and Procurement which are headed by Managers.

Sector Experience

The Kenya Pipeline by reason of its length of establishment as a parastatal has acquired invaluable infrastructure over time which because of the constant demand for petroleum products has been consistently maintained. The infrastructure and technical knowhow gained on a specialised level would be very useful in supplementing the rail system.

Currently the Kenya and Uganda Governments have already entered an agreement to extend the pipeline to Lake Albert and the ground breaking is scheduled for November 2013. In order to make the rail line efficient the pipeline could come in handy in reaching remote areas.

Kenya Ports Authority

Mandate &Legal Capacity

Kenya Ports Authority is a statutory body under the Ministry of Transport established by an Act of Parliament on 20th January 1978 responsible for the operation and management of the Port of Mombasa, other small seaports, the Port of Lamu, Inland Container Depots (ICDs) in Nairobi, Kisumu and Eldoret, liaison offices in Kampala and Kigali that cater for all transit countries.

Mandate

It mandate is to maintain, operate, improve and regulate all scheduled seaports along Kenya's coastline. It is also under The Kenya Ports Authority Act Section 12 mandated among other things to act as a carrier of goods and person on land and sea and to enter into any agreements with any organization and also specifically with Kenya railways to operate trains and road transport for purposes of its objectives.

Governance Structure

Kenya Ports Authority is headed by a board of directors comprising of both government and private sector nominees under a non-executive Chairman.

It has a broad management team that carries out the implementation of the board's policy and strategic decisions as well as the day to day activities. The management has specific technical departments that run the port activities as it is not a landlord port and therefore is involved actively in the discharge of services.

Sector Experience

Its predecessor Kenya Cargo Handling Services was responsible for managing both rail and maritime issues therefore giving it institutional memory on matters of railway transport.

The Kenya Ports Authority (KPA) has played a central role in enabling Mombasa port to remain the regional hub and the gateway to the East African region by undertaking huge investments that have improved cargo handling efficiency, seeing it emerge as the preferred port.

Container vessels turnaround time made a record improvement of 3.0 days in the third quarter of 2009, the best in the region, from 5.0 days recorded in the same period in 2008.

The average container dwell time is now 6.4 days against 13.1 days in 2008, reflecting an improvement of 51.1 per cent or 6.7 days. This is attributed to enhanced efficiency in port operations due to adequate yard space that has been made possible by a number of measures KPA has undertaken in the recent past.

KPA, is ISO 9001-2008 certified and did successfully embark on an automation programme which has played a key role in addressing the problem of port congestion by enabling faster clearance of the cargo.

In 2002, Enterprise Resource Planning System went live and since then, a lot has been achieved in the field of IT. In 2005, KPA contracted a Southern Korean firm- Total Soft Bank (TSB) -

which developed Kilindini waterfront operating system (Kwatos), which has now automated all the cargo handling operations.

KPA has also implemented Electronic Data Interchange (EDI) in transmission of manifest from shipping lines. The authority has implemented the gate pass module thus streamlining security control of cargo and vehicular flow.

Kwatos is now fully linked to Kenya Revenue Authority (KRA) Simba System, which has reduced the number of days required to clear the cargo from the port.

Apart from automation of the cargo handling operations, the efficiency at the port is also attributed to entrenchment of 24/7 working schedul and use of more Container Freight Stations (CFS's) that handle over 11,000 Teus outside the port thus freeing the port's yard.

Recent investments in modern cargo handling equipment and business process re-engineering have resulted in remarkable growth and improved performance in port operations that has enabled the port to deal with the growing cargo volumes.

The total freight handled by the port of Mombasa rose by 2.8 per cent from 15.96 million tons in 2007 to 16.42 million tons 2008 and as at 2012 the throughput stood at over 20million tons.

To address the cargo traffic which is expected to reach over 30 million tonnes by 2030 compared to 16 million tonnes handled in last year, KPA has embarked on a number of measures including the construction of the second container terminal with support from Japan expected to create an additional capacity of 1.2 Teus. The port is also dredging the channel to accommodate bigger ships currently in manufacture by ship makers.

KPA through private sector partnership is at an advanced stage of establishing a Free Trade Zone at Dongo Kundu, create more oil handling capacity among other flag ship projects.

It is also overseeing the construction of an entire new port at Lamu under the Lamu Port South Sudan Ethiopia project in demonstration of its capacity to undertake major projects effectively.

The port has improved safety of the port in compliance with the ISPS code. The port is implementing an integrated security system which will address access, controls, surveillance and detection, among others.